96-HHH

INCREASES IN ELECTRIC RATES IN RURAL AREAS

HEARING

BEFORE THE

SUBCOMMITTEE ON CONSERVATION AND CREDIT

OF THE

COMMITTEE ON AGRICULTURE HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

SECOND SESSION

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INCREASES IN ELECTRIC RATES IN RURAL AREAS

WEDNESDAY, JUNE 4, 1980

House of Representatives,
Subcommittee on Conservation and Credit
of the Committee on Agriculture,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:12 a.m., in room 1302, Longworth House Office Building, Hon. Ed Jones of Tennessee (chairman of the subcommittee) presiding.

Present: Representatives Harkin, Huckaby, Baldus, English, Daschle, Madigan, Kelly, and Hopkins.

Staff present: Robert M. Bor, chief counsel; John E. Hogan, counsel; Glenda L. Temple and Peggy L. Pecore, clerks; Wayne A. Fletcher, Robert A. Cashdollar, Frank Winston, Samuel P. Hayes, James W. Johnson, Jr., Gerald W. Welcome, and Bernard Brenner.

Also present: Representative Wampler of the full committee.

OPENING REMARKS OF HON. ED JONES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Mr. Jones of Tennessee. The Subcommittee on Conservation and Credit will come to order.

Good morning to all the witnesses and those who are here to hear the witnesses. Before we begin I have a statement to make, and there may be other members of the subcommittee who would also like to make statements.

Mine is short, but while I am making it I will also lay down the rules for today's hearing, the purpose of which is to identify factors reponsible for increasing electric rates in rural areas.

We will focus on rural electric systems but the problem is not unique to rural areas. The problem exists in urban areas as well. It impacts on investor-owned utilities as well as rural electric cooperatives.

Rising electric rates are one part of a larger issue facing our Nation. Energy and its relationship to the economy is the overriding problem of the day. Rising energy costs fueling inflation threaten the stability of our entire economy. Electric utilities are both a vehicle for and a victim of inflation. The time has come for us to identify inflationary factors and adjust our national priorities so that these factors may be better balanced with our society's goals.

One of the aims of the Agriculture Committee is to provide for a sound rural economy. Rising electric rates compound an already serious situation that rural economies are finding themselves in today.

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This is especially true in rural areas that are undergoing dramatic growth.

Today we will examine many of the complex relationships which affect electric rates. Hopefully through this examination and discussion we can begin to understand the problems that confront the electric industry and electric consumers as well. More to the point, we can begin to understand the relationship that these factors have to utility management in rate setting and the frustration that consumers feel when the electric bills arrive.

Today the subcommittee will follow the usual procedure. First, we will hear the morning panel. I ask each witness to orally summarize his prepared statement in 10 minutes or less. The entire written statement will be placed in the record.

Second, after we have heard the morning witnesses, each member of the subcommittee will have 5 minutes for questioning. I ask the clerk to time both witnesses and members. When the red light comes on your time is up.

If we have enough time and there is a need for additional rounds for our members to question the witnesses, we will take those additional questions in the regular order in which we are seated.

Our first witness this morning is Mr. Robert Feragen, the Administrator of the Rural Electrification Administration of the U.S. Department of Agriculture.

Mr. Feragen, before you begin I will ask Mr. Madigan if he has an opening statement.

OPENING REMARKS OF HON. EDWARD R. MADIGAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. MADIGAN. Thank you, Mr. Chairman. I am looking forward to exploring with the witnesses today the factors responsible for increases in electric rates in our Nation's rural areas.

Electricity has totally transformed the quality of rural life in America in less than 50 years. In my own State of Illinois nonprofit electric cooperatives were organized with financial assistance in the form of loans from the REA primarily to bring electricity to the farms in the 1930's and 1940's. Investor-owned utilities refused to do this, claiming that they could not do it profitably.

The rural electric co-ops have helped to transform Illinois into the leading agriculture exporting State. A tremendous capital investment in generating plants, transmission lines, substations, and distribution facilities was made and an adequate reliable electric service was provided at a reasonable cost to rural residents, despite the lower consumer density and less revenue per mile of electric lines than the urban-based utilities.

Rural electric co-ops, Mr. Chairman, have played a very important part in the development of rural America and rural residents are aware of the importance of reliable electric service. However, they are also aware of the financial burden increased electric costs have on their pocketbooks.

Mr. Chairman, I am looking forward today—and I will not delay the witnesses any longer—to the explanations that I am sure they will be able to provide us as to what the factors are that are causing the tremendous increases in electric rates in rural America.

Thank you very much.

Mr. Jones of Tennessee. Thank you, Mr. Madigan.

Mr. Baldus, do you have a statement?

Mr. Baldus. I have a very short statement. We may have problems with REA from time to time or with REC's, but I can remember as a boy the difference it made to me to milk cows by machine as opposed to by hand and between milking cows with a kerosene lantern or the flick of a switch. It made a big difference to me.

Mr. Jones of Tennessee. Thank you, Mr. Baldus.

Mr. Glenn English, do you have anything to say?

Mr. English. I have no statement.

Mr. Jones of Tennessee. Judge Kelly?

Mr. Kelly. Thank you, Mr. Chairman. First, I would like to ask unanimous consent of the committee that the committee be permitted to submit written questions to Withlacoochee since Mr. Billy Brown, the executive officer of that co-op, is not able to come here today because of a tragedy in his family.

I would also like to ask unanimous consent that Seminole co-op, which is an REA-administered generating and transmission co-op, be permitted to submit a written statement for the record to the committee and that we, in turn, be permitted to submit questions to them. Because of the short notice they were not able to appear but were willing to come.

Mr. Jones of Tennessee. Without objection, Judge Kelly, we will do that and will admit any other questions that are appropriate to submit.

[The statement of Mr. Brown appears on p. 134.]

OPENING REMARKS OF HON. RICHARD KELLY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. Kelly. Mr. Chairman, I want to take this opportunity to commend you and Mr. Madigan, and to thank the other members of the subcommittee, for scheduling these hearings because I believe that the hearings will prove of interest to all of the members of the Subcommittee on Conservation and Credit and will provide to the Congress and to the public generally an important update on the status of Rural Electrification Administration programs and their prospects for the future.

As you know, the General Accounting Office has conducted several recent studies of the administration of REA, the most recent of which is dated May 30, 1980, and is entitled "Rural Electrification Administration Loans to Electric Distribution Systems: Policy Changes Needed."

The REA has played a major role in bringing electric service to rural America since 1935 when it was established by Executive order. REA played an appropriate role in providing electric power to rural areas that used it to increase agricultural production and to turn on

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the lights in the barns, as well as to improve the standard of living of those that lived in rural areas.

However, the urbanization of rural America has been in progress now for some time and nowhere is that more evident than in my own Fifth Congressional District of Florida. What was once largely rural is today a mix of commercial, industrial, and residential, as well as some agricultural, activity. Many persons from the industrial North are relocating in large retirement communities in my district.

One of the reasons that I am especially pleased that these hearings are being held is that last fall I received a petition signed by 12,000 to 15,000 individuals who are members of the Withlacoochee River Electric Cooperative who complained that their electric billings were substantially higher than those charged by subscribers to the publicly owned Florida Power Co.

Apparently this differential in electric billings was brought forcefully home to the electric users when a change in the customer area served by Florida Power Co. resulted in those customers becoming customers of Withlacoochee River Electric Cooperative (WREC).

Increased billings for the former Florida Power Co. users resulted in complaints which ultimately found their way into the petition addressed to me by thousands of WREC members asking for congressional hearings.

Apparently no one is charging officials of WREC with wrongful acts. However, a large segment of the membership of WREC considers that they have not been provided with adequate answers as to why a private utility which pays taxes and dividends can provide cheaper electric power than a rural electric cooperative which is subsidized by public financing and is relieved from such Government regulation.

There are also questions such members have, in looking to the future, concerning the fact that Seminole Electric, an REA-regulated generating and transmission cooperative, is building a $1.2 billion plant that may increase electric rates for rural cooperative members in Florida in future years.

Mr. Chairman, I think that we can all recognize that REA-administered co-ops can have no reason for existence unless it is to render service to the people. The same service at a higher cost cannot justify government subsidy.

These hearings, Mr. Chairman, are constructive hearings and will permit the Congress to address some of these issues. Again, I commend you for scheduling such hearings.

In conclusion, Mr. Chairan, I am sorry that Billy Brown, the manager of the Withlacoochee River Electric Cooperative, cannot be present today. However, I wish to extend my condolences to Mr. Brown and his family upon the very recent and untimely passing of Mrs. Brown. I fully understand his absence.

Mr. MADIGAN [acting chairman]. Thank you, Mr. Kelly.

For the benefit of our guests this morning, there is a rollcall in the full committee next door. So members will be leaving to answer that vote, but they will be returning very quicky.

Mr. Feragen, you may proceed with your prepared statement.

STATEMENT OF ROBERT W. FERAGEN, ADMINISTRATOR, RURAL ELECTRIFICATION ADMINISTRATION, U.S. DEPARTMENT OF AGRICULTURE

Mr. FERAGEN. Thank you, Mr. Chairman. I will proceed under the rules that Chairman Jones outlined. I will begin by summarizing my statement which was submitted to the committee.

I appreciate the concerns of the committee and I share them deeply. I will review for you some of the actions of REA designed to address these problems.

I think the problem of increasing electric rates in rural America and throughout all the utility industry in America is particularly troublesome to the public because for a long time, through the 1950's and 1960's, electric rates were declining as we developed the large scale plants which delivered lower and lower cost electric power. Because of that, the shocking turnaround of increases, particularly since the oil embargo of 1973 and 1974, has been particularly troublesome.

I would suggest to the subcommittee that the problem lies in the economics of energy and not because of any implicit policy or structure within the rural electric systems themselves. In other words, it is pandemic to the entire utility industry in the United States.

I would like to suggest to the subcommittee that there are three major areas. I want to make a point about wholesale power compared with all other power costs and get into the cost to the consumer.

There are really three items that make up the cost of power. The first is the power production, which includes the generating plant construction costs, fuel, and other operating costs. Then there is the cost of high voltage transmission from the plants to the load centers, and then the cost of distribution.

In the beginning, rural electric systems, as the committee is well aware—although there has always been authority for REA to lend money for generating plants—began simply as distribution systems. The major effort was to distribute electricity from those lines out into the sparsely settled areas.

That was one of the main mandates of Congress, namely, area coverage, with the recognition that the economics of power in rural areas were going to be much tougher and more difficult than the economics of power in urban America. That was the substance of the congressional action in passing and amending the REA Act. I think we can detail that.

In the testimony we have outlined power costs compared with all other costs in a table that I think is very informative. It shows what has happened from 1962 to 1979.

There is an explanation of what constitutes those costs. Generally, power supply costs of the generating plant, fuel for the plant, and the operation of the plant are compared with the cost of distributing the energy.

In 1962, power supply costs for rural electric systems were 8.1 mills on the average and all other costs were 14 mills. In 1979, that had dramatically changed, and wholesale power costs were 26.3 mills. All other costs had reduced to 12.8 mills. In other words, the cost of wholesale power supply more than doubled from 1974 to 1979 and the cost of distributing the power, despite inflation, had actually decreased.

It pinpoints our major difficulty.

The written testimony details an example. I would like to go through it very quickly with the subcommittee. It is a plant that I am familiar with because I happened to work on the first one, Leland Olds Station No. 1. These are plants being built by Basic Electric and are typical of the experience that rural electric systems are having in building large scale generating plants.

I would suggest that it is the same experience that is generally being had by the utility industry.

The plant built between 1962 and 1965 was a 216-megawatt, or 216,000-kilowatt plant. It went into commercial operation in 1966. It was built for $135 per kilowatt. It had minimum pollution control and interest costs during construction and it was done in 5 years' time.

The Laramie River Station, which is a much larger station being built by the same cooperative, is made up of three units of 500 megawatts each. Its first unit will go into operation in June 1980. It will cost $680 per kilowatt. Pollution control equipment alone will be $165 per kilowatt and $116 per kilowatt will be for interest.

The operating costs of those plants are dramatically different too. They point to what has happened to fuel and transportation costs. Power costs at the bus in the 1966 plant was 3.289 mills per kilowatt hour and the 1982 projected cost for this station is 28.49 mills per kilowatt hour, in other words 8.6 times greater.

Fuel costs, as the chart will show, will be nearly 5½ times greater when this plant gets into operation.

The fixed costs are over 14 times greater. The elements of the fixed costs are ones which point to what has happened in rural electrification. First, the interest costs jumped dramatically in 1973 when the Congress amended REA to provide guaranteed funds for G&T systems. The interest rate went from 2 percent to the cost of money. Today the FFB [Federal Financing Bank] rate is running 9 or 10 percent. That has impacted the rural electric systems very greatly.

This same system will pay more in interest than it will for fuel this year. I think that is a dramatic representation of the interest costs that have to be borne by the cooperatives.

Inflation, of course, is part of interest costs broadly affecting construction. And the environmental requirements, as noted, have been substantial.

In addition, load has grown in rural areas faster than in urban areas. Rural electric systems have had to replace or add capacity faster than the private utilities, meaning that the higher cost generating capacity is coming on the line for their customers faster than, generally speaking, for those of the private utilities.

I might say that this might be different in some sections but it is generally true throughout the United States.

REA has loaned over $16.7 billion through guarantees. We have made guarantees to finance power supply facilities up to 1981—that is 21,000 megawatts of capacity. The average cost of that capacity—again remembering the 1960 figure of $135 per kilowatt—has been nearly $800 per kilowatt.

I will not go through the entire testimony, Mr. Chairman, because I think it may be self-evident. The testimony indicates that building a powerplant—that is, the permitting schedules that one must go through, the concurrence with the NEPA [National Environmental Policy Act], and the meeting of engineering standards and feasibility standards—is a very complex process.

To build a coal plant today takes from 8 to 10 years. Of course, the cost implications of that are tremendous.

I would like to convey to the subcommittee my concern about that by noting that I reorganized the REA staff to emphasize a focus on power supply. The testimony points up some of the details of that.

I am deeply concerned about these costs. I think REA has addressed them, but I would not suggest to the committee that there is any panacea or quick fix that will change the situation.

If you look at the figures throughout the country I think that you will see that in some areas the rural electric systems are selling power at a lower average cost than the adjoining private utilities, but it is a mixed picture. It depends very much on who got the last rate increase. It depends very much on what fuel is being used. And it depends upon the density of the systems being served.

REA is addressing these problems by requiring more careful load forecasting. We have an aggressive conservation program to help consumers save money. We encourage, in fact we require, the cooperatives to help the consumers save money. We are encouraging load control. We are also encouraging the development of supplemental energy resources as a way to get away from oil dependency.

Mr. Chairman, I appreciate the opportunity to address the subcommittee. I stand ready to answer any questions.

I have Mr. Joe Zoller here, who is the Assistant Administrator of Electric; and Mr. Bill Dalton, who is now retired from REA but is knowledgeable in this field and was our southeast area director prior to his retirement.

Mr. Jones of Tennessee. Thank you very much, Mr. Feragen. Without objection, your entire testimony will be made a part of the record at this point.

[The prepared statement of Mr. Feragen may be found on p. 72.]

Mr. Jones of Tennessee. When we have concluded all the witnesses, we will call all of you back at the same time.

We appreciate your testimony very much.

Mr. Feragen. Thank you, Mr. Chairman.

Mr. Jones of Tennessee. Our next witness is Mr. Bob Partridge, the executive director of the national Rural Electric Cooperative Association here in Washington.

Bob, we are delighted to have you. If you have other members of your organization with you, bring them up.

STATEMENT OF ROBERT D. PARTRIDGE, EXECUTIVE VICE PRESIDENT, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, ACCOMPANIED BY DONALD E. SMITH, STAFF ECONOMIST

Mr. Partridge. Thank you, Mr. Chairman and members of the subcommittee. For the record, my name is Robert D. Partridge. I am the executive vice president and general manager of the National Rural Electric Cooperative Association, a national service organization of the approximately 1,000 rural electric systems operating in 46 States.

In order to be within the time guidelines laid down for today's hearing, I will, with your permission, submit a statement and ask that it be placed in the record. I will only take time to summarize it briefly.

Mr. JONES of Tennessee. Without objection, the entire statement will be placed in the record.

Mr. PARTRIDGE. Thank you, sir. The subject of this hearing is the factors contributing to the rising electric rates in rural America. It is one of extreme concerns to NRECA [National Rural Electric Cooperative Association] and to the member cooperatives of the association which we represent.

You will get a first-hand account of how this grave problem impacts on the individual rural electric distribution cooperatives and their cooperatively owned power supply generation and transmission systems in the statements to be presented by other rural electric spokesman scheduled to testify here today.

I would like to set forth our views on some of the broad and pervasive national problems which we find impacting on the cost of power today. There are only a relatively few of them. They boil down to inflation, high interest rates, rising fuel costs, and an ever-growing regulatory burden. All of these are directly contributing to the higher energy costs being borne by all Americans, both urban and rural.

The relationship between the devastating national dilemma of inflation and the high cost of energy is a complex, and to a large extent I am afraid, self-perpetuating one. It really is a vicious cycle.

It is obviously true that substantial increases in the cost of electric power at the generation and at the distribution levels have a direct impact on all consumers' costs of living. Beyond this direct effect, power cost increases add to the cost of nearly every material, every product, and every service in the marketplace. In this sense, rising power costs are but one of the many contributors to inflation in general.

At the same time, however, inflation has a significant effect on the price electric cooperatives must pay for the equipment and materials they need, not to mention the cost of labor and other services necessary to operate a modern utility system. From that perspective, electric cooperatives like every other consuming entity are victims of the inflationary cycle.

The cost of fuel accounts for roughly 25 cents out of every dollar of the consumer's monthly electric bill. While every American, I think, is painfully aware of what has happened to the price of petroleum during the last decade, not many really are aware that most other fuel prices have also gone through the roof in the last few years.

In the period from 1969 through 1979, for example, utility coal prices grew by a factor of nearly 350 percent. Cooperatives, of course, have no alternative, more than any other utility system, than to pass those increases along to their member consumers.

Another factor which impacts directly on the electric cooperatives' operating costs is the rapid rise in the interest rates which they must pay on borrowed capital. This has been particularly true with regard to the financing in the area of power supply.

The escalation in interest rates, with increases ranging up to as much as 500 percent in some cases, has already had a significant long-term effect on the rates of rural electric systems. Mr. Feragen cited some specific examples in his testimony to you.

The effect of regulatory delay has also been a key factor, having more than doubled the average time required to construct most types of generating facility. Those time extensions result not only in the delay in service but also have a direct impact on the costs which ultimately have to be borne by the consumer members.

The cost of meeting today's even more, and ever more, stringent environmental standards is another ingredient in the complex equation.

Rural electric cooperatives certainly recognize the necessity of carefully considering the environmental impacts of energy projects and avoiding undesirable effects whenever and wherever possible and reasonable to do. The issue is, rather, over the procedures and the methods employed and whether they are producing reasonable and balanced decisions of overall net benefit to the public and to the Nation.

To summarize, it is evident that the factors contributing to rising electric rates in rural areas are many and they are complex. While this may give faint comfort to consumers that are hard pressed to cope with an ever-growing monthly power bill, the truth of the matter is that a large measure of the problem is far beyond the control or even the influence of the typical rural electric cooperative.

Inflation and high interest rates are national problems that will require a determined and concerted effort by all segments of our economy and our society to be resolved. Rising fuel costs are subject to a myriad of forces relating to both national and international policies and actions.

Until such time as our Nation achieves a much greater degree of energy independence, the overall pricing of primary fuels will be a factor we can influence but not control. I certainly do not intend to give the impression that nothing can be done to mitigate some of the forces which are driving energy prices ever higher.

Overregulation and its negative impact on both the cost and availability of energy supplies is a problem that was created by Government and can only be solved, I think, by Government.

NRECA and its member cooperatives will continue to press for changes in existing and proposed laws and regulations which will inject a sorely needed balance in our Nation's energy, economy, and environmental equation.

Power pooling and load management programs are just two of several types of activity which the cooperatives throughout the country have undertaken to help make the most efficient use possible of the existing facilities they have and thereby make it possible to postpone the addition of expensive new generation and transmission plants. We anticipate even greater involvement in these areas in the future.

Incidentally, we consider this an integral part of any meaningful conservation program.

Finally, there are a number of actions that cooperatives have already put into effect to help their consumer members cope with increased energy costs. Earlier this spring I testified before this subcommittee on the conservation and energization programs which the vast majority of rural electric systems have initiated to assist their members in making more efficient use of the power which they must have and do need.

We fully expect to see a great deal of continuing progress in this area as consumers become even more conservation oriented through the expanded information and education programs that many cooperatives are undertaking with the support of NRECA, REA, their State associations, and others.

Mr. Chairman and members of the committee, we do very much appreciate the concern and the interest of this committee and your holding of a hearing on this very important subject.

Mr. Jones of Tennessee. Thank you very much, Mr. Partridge.

Without objection, your complete statement will be included in the hearing record.

[The prepared statement of Mr. Partridge may be found on p. 83.]

Mr. Jones of Tennessee. We do appreciate the time you have given us on this matter as well as many other subjects on which we have called upon you from time to time to help us. We will call you back in a little while.

We are having a problem with the full committee. There is a rollcall vote over there. That is the reason members of the committee have had to go over to vote, and come back.

Mr. Partridge. Mr. Chairman, if I may, I should identify the gentleman to my right.

He is Mr. Don Smith, the economist for NRECA. He will be available during the questioning period to assist in any questions you may have.

Mr. Jones of Tennessee. Thank you, Don, for being here. I also see other members of your organization in the audience.

While we take a recess for a few moments, I will call the next witness so that he will be ready when the subcommittee gets back. He is Mr. Clarence W. McKee, vice president of financial services of the Florida Power Corp. of St. Petersburg, Fla.

Welcome, Mr. McKee. If you have someone with you that you would like to bring to the witness table, feel free to do so.

Mr. McKee. I have no one with me, sir.

Mr. Jones of Tennessee. I suggest that you do not start until the subcommittee members return.

[Recess taken.]

Mr. Madigan [acting chairman]. The chairman is back now, so Mr. McKee, if you would like to proceed with your prepared statement or in summary fashion, you may do as you choose.

STATEMENT OF CLARENCE W. McKEE, JR., SENIOR VICE PRESIDENT, FINANCIAL SERVICES, FLORIDA POWER CORP., ST. PETERSBURG, FLA.

Mr. McKee. My prepared statement should not take the full 10 minutes.

Florida Power Corp. renders electric service to approximately 735,000 customers in 103 incorporated cities and towns and in approximately 247 unincorporated towns and rural communities. The territory comprises approximately 20,600 square miles with a population of over 3 million located in 32 counties along the gulf coast and through the central "ridge" sector of Florida.

There are 20 municipalities interconnected with the company rendering electric service in the general areas served by the company; 6 purchase their entire requirements from the company; 2 purchase a portion of their requirements from the Southeastern Power Administration and their excess requirements from the company, and the other 12 own and/or operate all or a portion of their own electric generation. Those which own a portion of their generation purchase their excess requirements from the company.

The company also provides most of the electric energy requirements of Seminole Cooperative for resale to nine rural electric cooperatives in the company's area of service. The largest of these nine is the Withlacoochee River Electric Cooperative, Inc.

Actually, that is not quite technically correct. We prepare the bill for Withlacoochee and give it to Seminole. They pay the bill. That is the way it really works.

All retail sales of the company are subject to the regulation of the Florida Public Service Commission. Principally, this body has the authority to approve proposed rates, allowed rate of return, and conditions of service for all retail customer classes. All sales to wholesale for resale customers are regulated by the Federal Energy Regulatory Commission which is now a part of the Department of Energy.

During 1979 our total kilowatt-hour sales of 17.569 billion were broken down as follows: Wholesale was 3.045 billion, or 17.33 percent, with retail at 14.524 billion, or 82.67 percent.

Our total billings for electric service during 1979 were $822,060,000 of which $117,208,000 or 14.26 percent were to our wholesale customers while $704,852,000, or 85.74 percent, were direct sales to retail customers.

To provide a further breakdown as to our wholesale for resale sales of 3.045 billion kilowatt-hours, 1.227 billion were to municipalities while 1.818 billion were to our rural electric cooperative customers. Of the latter amount, 661.559 million, or approximately 36 percent of the total, were provided to the Withlacoochee River Electric Cooperative, Inc.

I really cannot add much as to the pricing, but from where I sit the reasons for price increases is, by far the most important, inflation. It has been unprecedented. Everything which we must buy—the goods and services, the salaries which we must pay—have been unprecedentedly high in recent years.

The era when we could achieve economies of scale through the construction of progressively larger generating units is gone. As one example, our Anclote unit No. 2, which was brought into service in 1978, cost $163 per kilowatt. We are now constructing two coal-fired units to be identified as Crystal River units Nos. 4 and 5 for completion in 1982 and 1984, respectively. Our current estimate is that these units will cost $620 per kilowatt.

We also have planned but not under construction additional coal-fired units for the latter part of this decade and our current projections are, with inflation continuing at what today would be a modest rate of 9.7 percent annually, that their cost would exceed $1,000 and would run approximately $1,075 per kilowatt.

A closely related but somewhat separate problem is the cost of fuel. We have been heavily dependent upon oil. We have been working for some time to move away from oil. In 1971 our cost of oil to generate electricity was 30 cents per million Btu. In 1979 this same oil cost $2.75 per million Btu which is an increase of 817 percent in 8 years' time.

In our industry we frankly are deeply disturbed by the continuing escalation in the cost of producing electricity. For several years now, going back about 4, we have been steadily promoting conservation of energy and have adopted a number of programs to encourage all of our retail customers to conserve.

We have, as one example, the energy saver home award which, provided certain requirements are met as to insulation and so forth, we do award to the home. We run tests that indicate that those homes in general will save about 35 percent of the energy per year compared to the normal home.

We anticipate that the cost of producing electrical energy will continue to escalate unless oil prices stabilize and the rate of inflation subsides.

I have attached to these remarks a chart entitled "Distribution of Revenue Dollar (Percent) 1970–79." I do not plan, except upon questioning, to get into the chart in detail.

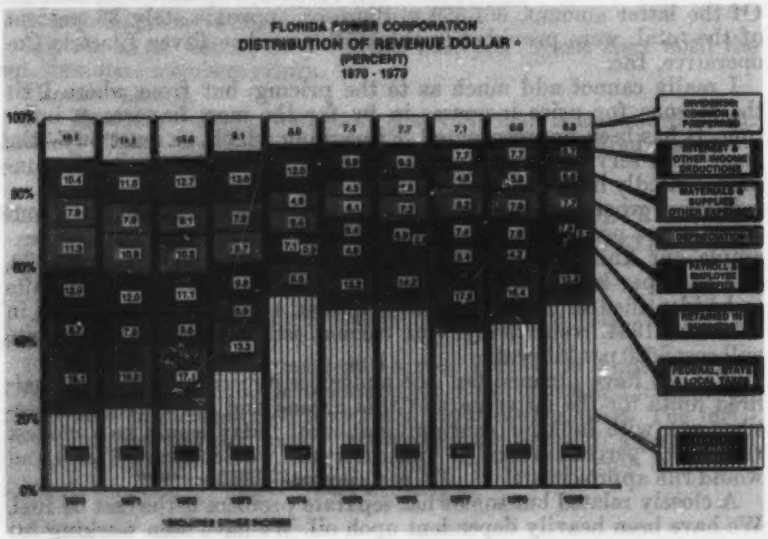
It is perfectly obvious even upon a cursory review of this chart that fuel and purchased power is taking a considerably larger portion of our revenue dollar while the amount remaining for our shareholders has shown a consistent decline.

This completes my prepared remarks. I will be happy to try to answer any questions which you might have regarding our business.

Mr. JONES of Tennessee. Thank you very much, Mr. McKee.

Without objection, the chart attached to your testimony will be included in the record at this point.

[The chart referred to above follows:]



Mr. JONES of Tennessee. We will call you back when we have heard all of the witnesses.

Our next witness is Mr. Girts Krumins, vice president and general counsel for the Colorado-Ute Electric Association of Montrose, Colo.

Mr. Krumins, if you have people with you, you may bring them to the witness table.

STATEMENT OF GIRTS KRUMINS, VICE PRESIDENT AND GENERAL COUNSEL, COLORADO-UTE ELECTRIC ASSOCIATION, INC.

Mr. KRUMINS. Thank you, Mr. Chairman. I am alone here from Montrose. For the record, my name is Girts Krumins and I am vice president and general counsel of Colorado-Ute Electric Association.

I have submitted a written statement together with certain attachments which I would like to ask be made a part of the record. I will simply summarize the statement for you.

Mr. JONES of Tennessee. Without objection, the entire statement will become a part of the record.

Mr. KRUMINS. Mr. Chairman and members of the subcommittee, Colorado-Ute is a rural electric cooperative. It is engaged in the generation and transmission part of the business. It is owned by and supplies wholesale electric power and energy to 13 member systems in the State of Colorado. These member systems supply about 120,000 customers in western and southern Colorado.

We cover about one-half of the total land area of Colorado. We have given you a map that shows that area. We constitute the second largest electric utility system in the State.

We are also, together with our member systems, fully regulated by the State regulatory commission.

The generating facilities are coal-fired generating units, located in the northwest corner of the State of Colorado. We own the facilities and they have a total capacity of 446,000 kilowatts. We also operate substantial additional capacity that is owned by others with whom we have joint projects.

We have been in the joint project business for a long time in order to gain efficiency of scale and cut the cost of production of power.

Basically, the problem with retail rates that I will relate to will be based upon Colorado-Ute's experience. However, we believe that the same factors are very much present in other systems.

In our area the wholesale cost of power now exceeds 60 percent of the member systems' total costs and it keeps going up.

From 1959, when Colorado-Ute's first plant began commercial operation, until 1974 there was only one change in our wholesale rates—a 7-percent decrease. Gains due to the economies of scale were then more than sufficient to offset inflation.

However, since 1974, primarily due to new costs of Federal laws and regulations, our rates have gone up at an alarming rate.

About 1 year ago, or a little over 1 year, we made a study of the cost of regulations. A copy of that study is attached to my written statement. It shows that most if not all of the retail cost increases of our members could have been avoided but for such regulatory costs.

During the period 1970 through 1978, which is what our study covered, the weighted average residential rate charged by Colorado-Ute to its 13-member systems increased from 2.72 cents per kilowatt-hour to 3.75 cents per kilowatt-hour, an increase of 1.03 cents. At about the same time, we are about 6 months off, as of mid-1978 the direct cost of compliance with governmental regulations at our coal-fired, steam-generating plants amounted to 0.403 cent per kilowatt-hour, more than one-half of the increase in retail rates.

I would like to emphasize that the direct costs I have enumerated and alluded to in the study include only those costs which could be specifically identified and quantified by Colorado-Ute. This was done for purposes of a rate case.

Costs hidden in prices to pay for materials, supplies, and services purchased from others, including purchased power, unless they are separately stated are not included in this number.

When consideration is also given to the additional costs due to Government regulations affecting the transmission function, the distribution function, and the indirect hidden costs in our purchases, it is apparent to us that but for all of these costs, all or nearly all of the 1.03-cent retail increase in rates could have been avoided.

In some cases they could have been lowered.

While this study is now over 1 year old—the data we have could be presented to you—but the trends are exactly the same.

One member system, for instance, during the period 1970 to 1978 had an increase of only 0.28 cent in its residential rate. Accordingly, we are convinced that were it not for the burden of Government regulatory costs retail electric rates in our area would be about the same today as they were in 1970.

You heard before that there are basically four major factors that affect electric rates and cause increases: inflation, interest costs, fuel costs, and regulatory costs. I would like to emphasize that these factors are not merely additive. It is the compound effect of all of them that concerns us.

We have furnished a table on page 4 of my written testimony that shows you the compounding effect that has occurred. In 1965 we completed our unit 1 at Hayden Station in northwestern Colorado. The cost of construction was $162 a kilowatt. It was financed at 2 percent interest under an REA loan program. The interest expense per kilowatt per year to produce that station in 1965 was $3.24.

Craig Station units 1 and 2—the first unit is now in service. The second unit will come on line in about a month. They cost in this time period $972 per kilowatt. They are financed at an interest rate averaging 8.2 percent, which is still a very good rate, but that interest per kilowatt per year is $79.70. This is an increase of 24 times over the interest costs for the power produced at Hayden Station unit 1.

At Craig Station unit 3, on which construction has just started, we estimate that the interest cost may be almost 40 times greater than it was at Hayden unit 1. That is also assuming a reasonably lower interest rate than perhaps we could even expect.

As to fuel, we were rather fortunate because we use coal. We use it in mine mouth generation plants and buy it under long-term contracts. Even so, the price of coal at the Hayden Station has more than tripled since 1970.

The price increases on the long-term contracts that we have are cost based and the cost of mining coal has increased for very much the same reasons as the cost of generating electricity has increased.

The study we have furnished you shows that the direct costs of regulatory compliance in 1978 amounted to about 35 percent, over one-third, of our total cost of production at steam generation plants. The greatest cost increase is in connection with compliance with Federal laws and regulations.

The same regulations also affect productivity and the manpower needed to operate stations. Only 42 employees were needed to operate Hayden Station unit 1 in 1965. We added unit 2 and thought that the number of employees would probably double. Instead of that, it is four times as many. The current approved level for staffing is 169.

Other people have been added to our headquarters to supervise the programs and to do other administrative work.

Also the additional equipment added because of Government regulations require energy to operate. Thus, in combination, output per man-hour and generation per Btu heat input is not going up any more. It is going down.

At Craig Station, which is now beginning operation as I told you, we do not have the numbers yet because it has not been in operation long enough—that the estimated direct costs of regulatory compliance will amount to 45 percent of the total generation costs. In dollars it will be more than double what it is at Hayden.

The same factors affect transmission line costs. In 1960 we built 115,000 volt transmission lines for about $15,000 per mile in mountainous terrain. The same sized lines on the same kind of terrain in 1977 cost $95,000 per mile.

Figure 1 on page 10 of the study that I have furnished shows what happened to the additional dollars.

To summarize the chart, which you can look at in detail, 59 percent of the cost, or $55,000 per mile, is the total regulatory and delay cost caused by regulations. It more than doubled the cost of the lines over what it should cost.

Also, regulatory delays increase operating expenses for transmission and waste energy. In one instance regulatory delay has been wasting 60 million kilowatt hours per year through additional transmission line losses. While at the same time peaking units have had to operate, consuming an additional 120,000 barrels of oil, or the equivalent natural gas, annually because the line is not of service due to delay caused by Federal officials.

While the development of coal has been announced as the key to Federal plans for energy independence, Federal coal leasing policies so far have actually tended to drive up the price of coal and inhibit the use of this resource. In the Federal Coal Leasing Amendments of 1975 Congress set a royalty floor of 12.5 percent for surface mines. The Department of the Interior has a policy of 8 percent minimum royalty for underground coal. The Government is a market leader in the Western coal. Consequently other royalty rates are being pushed up.

Diligence requirements imposed by law and regulation by the Department of the Interior in some cases, that I have enumerated here and have shown you, is an actual and complete waste, requiring additional equipment to be purchased for no more production. All this will have to be paid for by additional electric rates.

Colorado-Ute is certainly not opposed to all regulations. However, we do feel that we need a balance between environmental costs, Government regulations, and consumer benefits.

Governmental regulatory overkill is the primary reason for electric bills going up in rural areas from our experience. The increased costs paid by rural electric consumers result, in our view, from actions taken right here in Washington. We would ask you to take a close look at this problem and help us keep rural electric rates as reasonably priced as possible.

Thank you, Mr. Chairman.

Mr. **Jones** of Tennessee. Thank you very much, Mr. Krumins.

Without objection, your full statement and attachments will be included in the record.

[The attachments to the statement are held in the subcommittee file. The prepared statement of Mr. Krumins may be found on p. 90.]

Mr. **Jones** of Tennessee. I will ask all the gentlemen who have been heard this morning—Mr. Feragen, Mr. Partridge, Mr. McKee, and Mr. Krumins—and any of their staff who want to come forward to the witness table to do so for the questioning period.

Does any member of the subcommittee have a statement to make while we are waiting for the panel to come up?

Mr. Wampler, an ex officio member of this committee and a member of the full committee?

Mr. **Wampler**. Thank you, Mr. Chairman. I apologize for not being present to hear the earlier witnesses but as you are aware, we were having a full committee meeting on pending legislative matters.

I want to congratulate you and the ranking minority member for holding these hearings. I think they are indeed timely. I am anxious to hear the responses that the witnesses have.

I thank them for taking the time to come and share with us their testimony this morning.

Thank you.

Mr. **Jones** of Tennessee. Thank you, Mr. Wampler. We always welcome your presence.

Gentlemen, I will take my 5 minutes first and direct questions to two or three witnesses, or as far as I can go. Then I will yield to the next member of the subcommittee.

Mr. Feragen, I have one question for you. As I listened to your testimony, you said that you have reorganized the REA to do more for power supply than was being done in the past. I am not aware of just what you did.

Could you, in a short time, elaborate a little bit more on your statement than you did? One question I would like to ask is this. In the reorganization, did it require any more personnel or did you use the personnel already on board?

Mr. **Feragen**. I will start with that, Mr. Chairman. It was clear that we were not going to get more personnel. Part of the reason for the reorganization was an attempt to use our people as effectively as possible. Our personnel levels have remained the same.

I think the best way to describe the purposes of the reorganization is to point out that we put all the power supply functions into one division rather than having them taken care of on a regional basis. One of the purposes of doing that is to pull together into one place the very best engineers and experts on power supply, fuel, and the permitting process so that we could be sure that REA was not responsible for delay any more than necessary by Federal laws and regulations.

I would say that we are working on that, and have been working like that for the last 6 months. I think that Mr. Zoller and I both feel that we have a long way to go to make it as effective as possible.

I will say to the subcommittee, because I know all of you are concerned about local distribution systems in your areas, that we do not neglect them. We also have a division devoted to distribution system functions and these are handled by subdivisions on a regional basis who manage our field work.

I think the main concern here, as the Congress well knows, is this. The amount of funds guaranteed for power supply purposes has increased dramatically since 1973. We are talking about a program in 1972 of something on the order of $450 million maximum for the whole REA electric program. Last year we guaranteed about $5.5 billion for G. & T. purposes.

My concern is that we have the very best organization possible concentrating totally on power supply. I suggest to the chairman and the committee that my hope is that we can accomplish much the same as an increase in the number of personnel by making all areas more effective. That is my goal.

Mr. **Jones** of Tennessee. You feel that with only 6 months behind you for a record that you have made some progress.

Mr. **Feragen**. Yes, sir. I feel that we have.

Mr. **Jones** of Tennessee. Thank you very much.

Mr. Partridge, what areas under this committee's jurisdiction, in your estimation, could and should be looked at which cause electric rates to increase in rural areas?

Mr. **Partridge**. Mr. Chairman, in my prepared statement I hit upon the factors that it appears to us are primarily responsible for the rapidly and shockingly escalating rates. I would think that this committee, because it does have jurisdiction over the rural electrification program, among others, might appropriately examine the interest rates in particular and the splitout between financing by REA, the Federal lending agency, and by other lenders as well as the impact of that.

I think also that the committee might appropriately take a look at fuel costs because these are a major factor in what is happening to the cost of energy in rural areas. That applies not only to coal but, in a broader sense, impacts on agriculture as a result of the rising price of petroleum and all petroleum-related products.

Then you might look at the regulatory area. This is probably the area that is the most difficult because it is an outgrowth of well-intentioned and needed legislation over the years. It does seem to us that there is a need for oversight hearings by the Congress into the results of the regulatory enactments of recent years, in particular the interpretations of those regulatory enactments—that is, the translation of them into regulatory programs which, quite honestly, we have felt do extend beyond what the Congress had in mind.

This is true with respect to the Clear Air Act, the Clean Water Act, the Antiquities Act, and many others. This is an area that does need attention because it is impacting dramatically on the cost of power.

We have noted with the new generating plants coming on that the cost of power in some cases is upped by 30 to 35 percent simply as a result of the new requirements which must be met. We seriously question whether all of these are valid impositions and whether they really do reflect what the Congress had in mind in the enactment of the basic legislation from which the regulations stem.

Mr. JONES of Tennessee. In addition to the answer that you have given me here and what you said in your prepared statement, if there are some others that you would like to elaborate upon would you submit them to the committee?

Mr. PARTRIDGE. I would be pleased to, Mr. Chairman.

Mr. JONES of Tennessee. We would like to help if there is something we can do.

I know you covered interest rates rather well and the regulatory area. There is not much we can do about the price of coal, in my opinion, or the price of some of the ingredients that go into the makeup of electricity or power.

I have one other question and would like a short answer if you can give it to me. Would you consider the loss of public confidence in utility management on the whole as a factor in increasing rates?

Mr. PARTRIDGE. The loss of confidence in utility management as a factor in increasing rates—I really am not sure on that. I do not know of any cogent example that I can think of wherein that appears to have been the case.

I think all utility systems are under question today because our rates are going up. That is true whether it is an electric cooperative, an investor-owned utility, or a public utility. All of them are facing these increased costs.

I think because of that and because the public is not generally involved in the operation of these systems that there is not always an understanding and therefore there tends to be a questioning of management generally, across the board, everywhere.

That is a problem, one that we have been trying to deal with by trying to get to the public the information on just what is causing these rates to rise.

Mr. JONES of Tennessee. Thank you, Mr. Partridge. I have other questions but I have used my time and will now yield to Mr. Madigan.

Mr. MADIGAN. Thank you, Mr. Chairman.

Mr. Feragen, have you head the studies, particularly the Harvard Business School Study, on the quads of energy that are being lost each year in the United States through the conversion of coal to electricity or oil to electricity?

Mr. FERAGEN. I have not read the Harvard report. I have had it summarized for me. I think what you are referring to, of course, is the thermal efficiency of the various means by which we convert oil to electricity or coal to electricity.

Mr. MADIGAN. Would you, on the basis of the summary to which you have been exposed, say that the Harvard school studies are accurate?

Mr. Feragen. I find people talking about thermal efficiencies, as if utilities have been on a binge of wasteful use of coal or oil, misleading of the public. A very good modern, highly engineered thermal electric plant using coal today probably has a thermal efficiency of somewhere around 35 or possibly even 40 percent, although that would be very good.

A combustion turbine using high grade No. 2 oil could achieve maybe 40 or 41 percent. I think it is irresponsible for someone to say that, therefore, we are wasting 60 percent of the energy.

We have the laws of thermodynamics that say that friction and other things will only give you a certain net gain. There is a new technology that will do better than that. The fuel cell, for example, using hydrogen, will achieve 50 to 60 percent thermal efficiency, and even that high a technology will not approach anything like 80 to 100 percent.

Mr. Madigan. If we were to find an application for the waste heat, would we not increase the efficiency considerably?

Mr. Feragen. Yes. I think, Mr. Madigan, we ought to do that. In fact, REA has encouraged it and we have examples of cooperative utilities using waste heat for the growing of fish in fish ponds, or providing supplemental heat for greenhouses. We are now studying a requirement that plants be designed so that heat can be extracted from the cooling system.

As a matter of fact, was it not, at one time, actually not a novel practice to use that excess heat to provide the warmth for commercial buildings in downtown areas by the use of steam tunnels.

Mr. Feragen. Yes, but I would suggest to you that the system was designed to do that. We are now talking about an intrusion into the steam system—that is, the steam cycle. Those systems of district heating that were so common, even in my hometown, had a little powerplant located downtown and they designed it so that the steam pressure in the turbine was accommodated by the steam takeoff for that steam system. Yes, you can do that.

However, I would suggest, it does not improve the thermal efficiency of your equipment. I will substantiate that with an engineering opinion, but that is my informed opinion.

Mr. Madigan. Would it be possible—for example, if someone were interested in building a facility to convert grain into alcohol—to locate that facility near a power generation plant and attempt somehow to use the waste heat from the powerplant to provide the energy for their manufacturing process?

Mr. Feragen. Yes. I agree that it would be, and the economics of extracting steam might very well prove that that is a good idea. In fact, we identified for the Department of Agriculture all existing plants and those now under construction in the Grain Belt where that extraction might be possible.

Again, it is a matter of designing the steam system to accommodate that, because if you do not use it, the efficiency of the turbine generator will become lower and then the cost of electricity will go up all the more.

Mr. Madigan. The nature of rural electric co-ops has changed considerably through the years in my district and I suppose in most other districts. We have commercial and industrial customers of rural electric co-ops now.

Do you know if the co-ops provide the same sort of pricing mechanisms that investor-owned utilities do—that is, the more you use the cheaper the unit cost gets?

Mr. FERAGEN. In the past that was true. Cooperatives have done the same thing. They have had promotional rates. Those are now discouraged by law under PURPA [Public Utility Regulatory Policy Act]. REA is pursuing a policy of seeing that promotional rates are not promoted.

Mr. MADIGAN. Would you care to offer an estimate of how many co-ops still have some sort of promotional rate scheme?

Mr. FERAGEN. I would be glad to provide that for the record, since I do not have it in my head.

Mr. MADIGAN. Does REA encourage its members to increase equity investment all of the time?

Mr. FERAGEN. In the past, REA has suggested 40 percent equity as a point they ought to try to achieve. As a matter of fact, nationally today I believe it is about 32 percent equity. That varies a lot, from areas of less than 10 percent to some areas where it is considerably more than that.

I think what we are dealing with here is how it affects rates if they are devoting a lot to building an equity position. I think the board and management have to balance the question of how healthy the cooperative business they have should be, for example, if the REA program came on poor times and they had to go on the open market for financing.

To directly answer your question, REA does not now urge their reaching 40 percent equity. In fact, we recognize the fact that they are not adding equity that fast. We understand the difficulty of, say, an aggressive equity building position.

I would suggest on the other hand that a co-op that has less than 10 percent probably ought to do something about it, because it may be in serious trouble in the future.

Mr. MADIGAN. My time has expired. Thank you, Mr. Feragen.

Mr. JONES of Tennessee. Thank you, Mr. Madigan.

The Chair now recognizes Mr. Huckaby for 5 minutes.

Mr. HUCKABY. Thank you, Mr. Chairman.

Mr. Feragen, in 1973 in the first OPEC oil crisis, the Federal Government made the decision, as I recall, that utility companies, including rural electric power generating companies, could no longer use natural gas as a boiler fuel once their existing contracts with suppliers expired.

Now we find ourselves urging powerplants to quit using fuel oil. Are we encouraging them to go back and use natural gas as a boiler fuel?

Mr. FERAGEN. No. As a matter of fact, I think we are encouraging them to convert to coal if it is possible. There are some cases where that is possible.

In the case of gas-burning plants it is a fairly extensive retrofit to reconstruct. I am not aware of our encouraging utilities to go back to the burning of gas.

There are some exempt gases, like coal vent and methane, that they are permitted to use for boiler fuel.

Mr. HUCKABY. So today coal is really the choice.

Mr. FERAGEN. And nuclear power.

Mr. HUCKABY. Possibly nuclear power.

Have you looked into the cost of coal recently and what it has done in the last 2 or 3 years as far as transportation costs and severance tax costs are concerned? Are you aware of the fact that in Louisiana we can buy coal cheaper from Australia, cheaper from South Africa, import it and pay the transportation costs and it is cheaper than we can buy coal from Wyoming and Montana?

Mr. FERAGEN. Yes, sir. I am painfully aware of that. It is a very long and expensive delivery system by unit train and barge. I think your facts are correct. There is no question about the cost.

That is caused, in part at least, by the regulation of the railroads and barges and the rates they charge.

Mr. HUCKABY. What is your agency doing to correct this total imbalance which ultimately reaches the rural consumer?

Mr. FERAGEN. In Louisiana, we are working with Cajun Electric and encouraging them to look at native lignite resources close by—in other words, mine-mouth types of plants. To the extent that those are feasible, REA, as it has done in other areas, would certainly encourage that development.

Mr. HUCKABY. That is true where we have a unique source of lignite coal, but there are other parts of the country that will have to continue importing this coal from the Midwest. Is the administration seriously addressing and going ahead with limiting the severance tax? What is going to happen with the train deregulation bill as far as the industries that have a partial monopoly on moving this coal is concerned and future prices?

Are we going to let ourselves price ourselves out of the coal market when we are the OPEC of coal?

Mr. FERAGEN. I would certainly hope not. Others at this table may have more details.

I understand that there is some legislation addressing the severance tax question. I believe it really results in a States' rights question.

Many of the States, where the lignite sub-bituminous coal is, have exacted what are considered very high severance taxes. The question of whether or not the Federal Government intrudes on that practice, I guess, is a problem for the Congress.

Mr. HUCKABY. Today, on the average, what percent is a coal-fired plant paying for transportation costs to get the coal? Of course, this varies depending upon what part of the——

Mr. FERAGEN. It varies a good deal, Mr. Huckaby. If I can I will provide you a table which might give you some regional fix on that. I am sure that it is a lot different, say, in the area I am familiar with—the upper Midwest—where I would say transportation costs are very low because they are mostly mine mouth, compared to plants in other parts of the country where you have long transportation links.

I will provide you with that information for the record if you would like it.

Mr. Huckaby. Do they pay in some parts of the country up to as much as 75 percent of their costs to transportation?

Mr. Feragen. Yes; I think some would.

Mr. Huckaby. Has anyone looked at the rate of return that the railroads are making on these hauls? Are they subsidizing other businesses?

Mr. Feragen. We have not done that in REA. I am not here to apologize for the railroads, I assure you.

Mr. Huckaby. I realize you are reaching possibly out of your jurisdiction, but we have said earlier that coal is the way we are going to have to go in the foreseeable future. If you have three-fourths of your costs in transportation, I believe we need to be reaching out into that area.

Mr. Feragen. I suggest that you have a very good witness this afternoon, Mr. Holum, who is head of a coal cooperative used by a number of rural electric systems. He probably has definitive numbers.

I would say that in our case, working with Western Fuels and encouraging that, at least they are building up a bargaining power position with the coal transporters. To the extent that they are able to do that, I think it is a very positive thing.

However, they still must deal with the ICC and the ratesetting policies of the Government.

Mr. Huckaby. You mentioned lignite earlier. Is it economically feasible to convert a plant that is burning conventional coal to lignite?

Mr. Feragen. I think it probably is, although it might be very expensive and you will lose a lot of capacity because of the difference in the size of the boiler. Lignite, because it has a very low heat content, requires a very large boiler, sometimes three times as large as, say, one using a high beat value coal. Therefore, it might be feasible in technical terms but it might not be economical.

Mr. Huckaby. So, rural electric companies that today own existing coal generating stations are pretty well locked in to that. How many coal-fired generating plants owned by rural electric co-ops are there in the Nation?

Mr. Feragen. We will provide that for the record. I do not have that number in my head. It is over 80 percent of the total capacity that we have.

Roughly 40 percent of the needs of the rural electric plants are supplied by their own generation and 80 percent of that is coal, but we will provide you with the exact numbers on that.

Mr. Huckaby. Forty percent of your total needs today you provide yourself and 80 percent is coal.

Mr. Feragen. Yes.

Mr. Huckaby. Are you moving to increase the 40 percent?

Mr. Feragen. The options open to rural electrics are both nuclear and coal—nuclear where there is an opportunity for joint ownership and coal where there are resources available to them. Even in Florida there are two very large units that will move coal by train.

I would say the options are really those two, although there is some small generation being developed in what we call supplemental; for example, low head hydro. I do not expect that to account for a lot of capacity.

Coal is a key fuel for rural electrics.

Mr. JONES of Tennessee. The time of the gentleman from Louisiana, Mr. Huckaby, has expired.

I yield to Mr. Baldus for 5 minutes.

Mr. BALDUS. Thank you, Mr. Chairman.

I have questions, also, about conversions from oil. I understand that oil can be attractive for peaking plants. You do not have the environmental problems. Perhaps initial cost is less, but I think that we all recognize that even the low percentage which you use, which is something like 13.8 percent oil, amounts to quite a lot of oil and it is more critical.

Do you anticipate that that 13.8 percent will be diminished over the next 5 years?

Mr. FERAGEN. I am sure that it will be as a percent of total needs because of the increase in the number of coal plants that will be built.

Mr. BALDUS. Do you have any figure in mind that you could predict for us? As far as the years are concerned, I will let you select them rather than me select them.

Mr. FERAGEN. I think I can provide that for the record just on the basis of the number of plants that are now under construction. We could probably give you a percentage for figures up through 1986 and possibly even 1990.

Mr. BALDUS. You still have this peaking problem. Of course, oil is a convenient fuel to use for peaking. Are you making combinations to overcome those peaking problems?

Mr. FERAGEN. That varies a good deal from region to region and the relationship with the utilities. Generally speaking, I would say that the relationships for meeting reserves by contractual arrangements with other utilities are very highly developed.

You are correct about oil for peaking. It is an ideal fuel. Oil and gas are both ideal fuels for that. Plants can be started very quickly. They can have a lot of flexibility in their operation.

We do not have any oil plants or any peaking plants. We have combustion turbines that use oil for peaking but they are not boiler plants.

Mr. BALDUS. In other words, the 13.8 percent really represents base load and almost no peaking.

Mr. FERAGEN. It will be both.

Mr. BALDUS. So, the percentage will come down simply because new plants won't use oil. I am concerned that even though the cost of new plants may be more, our national concern is to reduce our dependence on foreign oil. It is one that we all have to consider.

I am looking through this booklet and it indicates, as most of you did, that one of your concerns is the cost of regulations. Everybody complains about regulations and I see you do have some specific recommendations.

Are there any particular laws on the books that you would advocate repealing?

Mr. FERAGEN. I think that is a question for Mr. Partridge, sir.

Mr. PARTRIDGE. I do think, Congressman Baldus, that there is a need for a review, as I said a moment ago—a review by the Congress by way of oversight hearings of the actual application and interpretation of the Federal laws enacted in the last several years in all of these areas—the clean air, the clean water, the endangered species, the wetlands bill.

It appears to us that the actual implementation of these laws goes far beyond what Congress had in mind and in many cases is not only adding greatly to the cost of energy but is actually working at cross purposes——

Mr. BALDUS. Let me interrupt, if I may. You are not advocating that all of them be repealed, are you?

Mr. PARTRIDGE. I think you know that rural cooperatives have always been advocates of adequate regulation. There is a necessity and a rightful concern in many of these areas.

What we do say is that we really do believe that what has happened goes far beyond what is needed and far beyond what the Congress had in mind. That is particularly true of some of the things that we see coming from the Environmental Protection Agency, for example, some of the requirements of the Council on Environmental Quality. I could go on to some of the other statutes that we now must deal with.

We think a reexamination of these is really needed because what has happened is the development of a series of regulations which not only are beyond our capability to grasp, in many cases, and comply with but we actually believe that the implementation of these laws is dramatically reducing the capability of this country to move to its own domestic energy resources and away from foreign oil.

Mr. BALDUS. How about the Energy Mobilization Board? Do you see that as a useful way to speed up the process?

Mr. PARTRIDGE. Yes, we do. We wish that the Board would address the questions of utility systems to a greater degree than it appears that the administration does intend that it do.

It seems to us that fast track action is needed and ought to be carried out by the Energy Mobilization Board to assure that needless delays, and therefore needless costs, do not continue with respect to new utility plants of all kinds, generation and transmission.

Mr. BALDUS. I think one of the problems we may have—in Wisconsin at least, although I do not know if it is in all States—is that at the time we got electricity on the farm there was eminent domain. If you decided to put a powerline there, that is where the powerline went. There was no argument about it. The amount of benefits that flowed to the landowner was decided by, for the most part, the utility company. All of us would have supported eminent domain at that time because that was one way to get the electricity there.

Now that everybody has electricity, they view it differently and I think some of the problem that you are having now is perhaps the result of the attitudes of some utilities at that time, for instance, putting things through without much consultation or even consideration of local people's problems. We are concerned about the cost of it.

Thank you, Mr. Chairman.

Mr. JONES of Tennessee. Thank you very much. Mr. Baldus.

The Chair yields for 5 minutes to Judge Kelly.

Mr. KELLY. Thank you, Mr. Chairman.

Mr. Feragen, in your testimony on page 3 you have a chart which shows that between 1962 and 1979 you actually reduced the price of all costs other than fuel and in your oral testimony you said that this pinpoints the problem that the enormous increase in price has been for fuel.

Do I interpret what you have written and what you have said correctly?

Mr. **Feragen.** Fuel and all power supply costs, including construction costs, yes, sir.

Mr. **Kelly.** All right. In the Fifth District of Florida we have Withlacoochee that I know you are familiar with. They have a service charge that is 140 percent more than their taxpaying neighbor, the Florida Power Corp.

This certainly would fly in the teeth of this good record that you referred to on page 3; would it not?

Mr. **Feragen.** First of all, this is a national average of all cooperatives. We have a witness here that I think may——

Mr. **Kelly.** I was not looking for another witness——

Mr. **Feragen.** It depends, Congressman, on what is made up in the service charge and I do not know what that is—whether it is a fuel adder——

Mr. **Kelly.** It is not. It is just a service charge. It has nothing to do with fuel and it is 140 percent more.

With regard to another item, we have the base charge minus any fuel charge which is nearly 20 percent higher for Withlacoochee than it is for Florida Power.

The people in my district are concerned that Withlacoochee is not regulated. It is financed with public money. They do not pay taxes.

What I would like to ask of you is that if we attempt to have some public hearings—I would hold these hearings as a member of this subcommittee and as an elected Member of Congress. If we held some hearings down there to try and understand what the underlying problems are, specifically with Withlacoochee rather than as a part of the national situation, would you or some representative of your administration participate and assist us in that task?

Mr. **Feragen.** Mr. Kelly, as I said to you in your office when we had a meeting for an hour and a half, I think it would be inappropriate for the Administrator of REA to go into any district——

Mr. **Kelly.** Did you say the Administrator? I did not hear you.

Mr. **Feragen.** Yes; the Administrator or one of my staff. Withlacoochee is perfectly able to answer to the State of Florida and to any private citizens there as to its rate structure and to its power costs.

If this committee wishes to hold a hearing any place, we will be absolutely responsive to that.

Mr. **Kelly.** Mr. Feragen, I thank you for that, but I want you to know that your Administration is the only one that I know of in this Government that has failed to cooperate with me as a Member of Congress.

I would like to ask this question of Mr. Partridge and you too if you care to answer. Why do you think that we can justify as a nation that the power companies that pay taxes are regulated but those that are supported with the public's money are totally without control?

In other words, Withlacoochee is charging 140 percent more but they could charge 1,040 percent more and there would be nothing in the law to control them at all. They are beyond any control with regard to how much they can charge their customers, but they have the freedom to be out from under much regulation, and they have public financing, and they do not pay any taxes, and they do not pay any profit.

Mr. Feragen. I do not agree with the characterization. They do pay property taxes——

Mr. Kelly. Well, they do not pay Federal taxes.

Mr. Feragen. They do not pay Federal income tax because they are not a profitmaking organization.

Mr. Kelly. All right. What I am asking you is: Do you not think that the co-ops, financed with public money, should be under exactly the same regulations and for the same reason, namely, to protect the public from this kind of overcharging?

Mr. Feragen. Various States have addressed this problem and many of them have rate regulation.

Mr. Kelly. What I am asking you is: Do you not think, as the Administrator, that the consumer should have available to him the same protection from co-ops that he does from any other utilities? If they are not good for you, then why are they good for the taxpaying, independently owned——

Mr. Feragen. I think there is a world of difference between an investor-owned utility and a cooperative. I think they are run differently. Their structure is different. Therefore, the way in which the membership runs the corporation is different from the way a private utility runs it.

Mr. Kelly. I understand, but to the consumer who is paying the excessive charges, what difference does it make about the differences? The bill is just plain bigger.

I am wondering just what justification you have for not protecting the consumer from a co-op in the same way that we would protect him from a privately owned company.

Mr. Feragen. The laws of the State of Florida provide for the membership to have annual meetings and for dissatisfied members to take whatever action to change that cooperative. I think those opportunities are all there for the cooperative members.

Mr. Kelly. Mr. Chairman, may I have one additional question?

You have just recently provided $1.2 billion in capital to Seminole, which is a generating and transmission co-op. As far as I know, Seminole has never generated anything.

It would seem as though in a tight money market, giving $1.2 billion to an organization that has no experience to start generating would seem to be a fairly risky venture if you were using your own money.

I wonder what sort of justification in base went into diverting that much captial in the generating industry to Seminole under the circumstances.

Mr. Feragen. Let me say, Mr. Kelly, that I worked for a cooperative that had never had any generating experience and the first powerplant it built in North Dakota was the largest lignite plant ever built in the United States. That plant, in its second year of operation, was among the top three in the United States in operation.

I would suggest to the subcommittee that that shows that the cooperatives are well able to get into the generation business and to do a good job.

I would also suggest that the general manager of the Seminole is a very experienced utility person, having come from private utilities.

Mr. **Kelly.** I would certainly agree with you there. Gary Wright does seem to be a very qualified person.

Thank you, Mr. Chairman.

Mr. **Jones** of Tennessee. Thank you very much, Judge Kelly. Now the Chair yields to Mr. English for 5 minutes.

Mr. **English.** Thank you, Mr. Chairman.

I just have two very brief questions. Mr. Partridge, what is NRECA doing by way of research to reduce costs and become more efficient?

Mr. **Partridge.** Do you mean within the organization itself or for our members? I am not sure I grasp that.

Mr. **English.** I mean within the organization itself with the thrust, of course, being mainly to reduce costs to your customers.

Mr. **Partridge.** Congressman English, the members of NRECA are individual utility systems. They are our members. They own us, not the other way around.

We do carry on for them a good bit of training and consulting work. This includes the financial areas of their operations.

What they do and how they do it is, of course, their own decision. We can only advise and consult. We have a very comprehensive program in that respect. An entire department of the association is devoted to management training and consulting work.

Mr. **English.** What can be gained through load management?

Mr. **Partridge.** I said earlier, and I believe that you may not have been here at the time because of the quorum call, that we view load management as a vital part of energy conservation activity. We think that any energy conservation program that is meaningful has to include load management and our systems are doing a great deal in that field.

This is particularly true, I think, in your own State where there are oil-pumping loads and irrigation loads. It is true all through the Plains country and, I think, they were the pioneers in this respect.

It is becoming even more important today because we are trying to get those unit costs down and avoid the peaking which adds so dramatically to the cost of energy for everybody

Mr. **English.** Thank you very much, Mr. Chairman

Mr. **Jones** of Tennessee. Thank you very much, Mr. English.

Mr. Wampler, do you have any questions?

Mr. **Wampler.** Yes. Thank you, Mr. Chairman.

At the outset, I would like to commend the National Rural Electric Cooperative Association and the National Rural Utilities Cooperative Finance Corp., for what appears to be an outstanding publication. I have had a chance to hurriedly thumb through it during the interrogation of the witnesses, listening to what they said at the same time I was reading.

I believe this ought to be required reading for every Member of the Congress. I think it is very well done and I want to congratulate you. I find myself in agreement with many of the conclusions you have reached. It is indeed an outstanding publication and I commend you for it.

Mr. **Partridge.** Thank you, sir.

Mr. Wampler. Mr. Chairman, I want to direct just a question or two to Mr. Krumins. I represent all of the coal production in Virginia. Normally we produce about 40 million tons of coal a year when our industry is working at its capacity. Unfortunately, at the present time the industry is not at full capacity for a variety of reasons, one of which is the loss of markets, both domestic and export.

Traditionally our coal industry in Virginia shipped a good deal of the steam coal to utilities in the Carolinas, Georgia, and to some degree in Florida. I share many of the observations and conclusions that you made in your statement about increased costs as it relates to the cost of energy in terms of Government regulations. In many cases, in my judgment, these are needless regulations.

This is one of the principal causes of increased energy costs in this country.

Having served in the Congress now for 16 years, I suppose that I supported a good deal of the so-called environmental legislation that was before the Congress. Mr. Partridge quite properly said that in many cases the executive branch of the Government that is implementing the laws that Congress passed directed to the environment and the regulation writers went far beyond the intent of the Congress.

Do you feel that the time has come when Congress, in its proper exercise of its oversight function, ought to reexamine some of the laws and particularly the regulations that are being used to implement the laws?

Mr. Krumins. Yes. I think that that really is the thrust of my testimony here today. It is not just the regulations. It is the laws that gave rise to the regulations as well as the regulations themselves.

I think, when you talk to the people that administer the laws, the agency people, they will tell you that there is no choice. We cannot do anything because that is what the law says. In many cases that is what the law literally says.

I think one of the examples that I have given you with respect to coal—since you are interested in that—is this. On the diligence requirements the law says that in order to have a logical mining unit it has to be contiguous. Now there is no logic in why it has to be contiguous except that the law says so.

In one instance that I have cited all costs are going to go up tremendously because the properties are not contiguous. They had to buy another dragline and all the people to run it just to accommodate the law.

There are many many instances of that kind.

The same is true of the Clean Air Act. Also, the various powers that have been delegated to the administrative people in the Federal Government—the Federal land managers in the Western United States have such tremendous veto powers over every project that I think Congress should really find out what powers they have been delegated.

Mr. Wampler. I would agree with you on that. I think through the years—and this did not just happen overnight—Congress either wittingly or unwittingly has delegated a good deal of its constitutional responsibilities to the executive branch of the Government.

Mr. McKee, it is my understanding that either under a grant from the Department of Energy or a grant or study in which the Department of Energy is cooperating, a project has been in place in Florida in which some rather encouraging results have emerged with blending oil and coal. As I recall, it was about a 50-50 blend that was adaptable without extremely expensive retrofitting.

Do you have any knowledge of that or any comment to make on it?

Mr. **McKee**. Yes. I am reasonably knowledgeable in that area. We have a subsidiary, wholly owned, called Electric Fuels Corp., whose function in life is to provide coal at our Crystal River plant site, first and foremost at the lowest possible price.

Back in 1978 we conducted a successful test at our Crystal River Unit No. 1 using a composite fuel of about 50 percent by weight coal and oil. We did that in conjunction with Dravo Corp. We are currently in a partnership with Dravo and hope to, within a very short period of time—say, 30 days or less—announce a third partner who will come into that who has the coal resources.

We plan to convert our Bartow Plant No. 1, which is a 125-megawatt unit, to burn this fuel. It will cost about $10 million to do that but we think that it will be successful.

The distinction between our process and some of the others is in the fineness of the coal that is ground down to approximately 10 microns. It is the consistency of talcum powder. On that basis, we think that is the way to go rather than to screen it as some other processes have done.

We look upon it as a way to reduce our dependence on foreign oil and also as a way by which this partnership of the subsidiary could actually build facilities to process it and deliver it to other companies, including industrial companies in the country.

Mr. **Wampler**. Mr. Chairman, I have one final observation. I think Mr. Krumins and others alluded to it. It is that as utilities and generators of electricity are called upon to install very expensive equipment, particularly scrubbers, allegedly to meet certain environmental requirements, I think we all should be fully aware that by and large these are nonrevenue-producing expenditures. Ultimately they have to be passed through to the consumer or taxpayer, or both, but I do not know how you distinguish between the two because I think they are one in the same.

As I tried to indicate at the outset, I think sometimes, in our zeal here in Congress to address ourselves quite properly to legitimate problems of the environment, we have overreacted to such an extent that for many of the things that Government now mandates the bill is being presented.

I think the American people should be aware of the cost. Perhaps they are prepared to pay it. I do not know. It just seems to me that in many cases that are well documented that it represents a needless expenditure and one that really does not substantially contribute to cleaning up the environment but it certainly is costing the ultimate consumer of electricity in this country.

Thank you, Mr. Chairman.

Mr. **Jones** of Tennessee. Thank you, Mr. Wampler.

Let me say that you asked a question of Mr. Krumins that I had ntended to ask him in the second round.

Mr. Krumins, may I suggest to you that if you have any other suggestions besides the ones that you have in your written testimony that the Government needs to look into we would appreciate your making those recommendations to us in writing.

Mr. **Krumins**. Mr. Chairman, if I could respond to that. I think the question was asked of another witness as to what laws should be looked at and I was thinking to myself that I could probably spend the rest of the day with this subcommittee telling you the laws that need to be looked at. I do not know the best way to communicate this with your subcommittee, but I will certainly be glad to do it in any way you wish.

Mr. **Jones** of Tennessee. I would suggest that you do it in writing because of the press of time and all that. We would be pleased if you would. It might necessitate some additional hearings at a later date or something of that sort. We are greatly concerned about this problem. It is one that has continued to grow and has really become a big problem at this time.

In the press of time, I would appreciate your submitting anything to us that you could.

Mr. **Krumins**. We will do that.

Mr. **Jones** of Tennessee. Mr. Wampler, thank you for asking that question. It was a very good one.

Now, would the subcommittee like to go for another 5-minute round each? Judge Kelly, you would.

For those who want to participate, we will allow another set of questions, without objection.

We will probably get a call for the House before we go all around this time, but we will start and go as far as we can.

Mr. Partridge and Mr. Feragen, I have a question I would like to ask both of you. I have asked you privately and I have mentioned it to you on a number of occasions. I would now like to ask you publicly in front of this subcommittee because it is something that really concerns me and I suspect that it concerns every member of this subcommittee and the full Committee on Agriculture.

For several decades now the Rural Electrification Administration and the rural electric co-ops were held in high esteem—please remember that I said "were" held in high esteem—both in Washington and by electric consumers.

However, in the past several years the prestige of the system has deteriorated. Consumers in my district complain not just about rates but also about a lack of responsiveness on the part of the co-op and its management. Why is this happening? What can be done about it?

What I want to say to you is that you are at an all-time low as far as public relations are concerned. This worries me because I have always supported co-ops and I have always been interested in the cooperative system.

However, when I go to a co-op manager and explain a problem that exists where there are 500,000 people who are being serviced, I get a no-no to almost everything that I ask for. They are simple answers. They are being done by other industries.

Why is it, with the low rates of interest that you have compared to what some people are getting today, we cannot spend a little bit more money to get along with people who are the membership and quit acting like a great big old industry like we knew back before the REA days?

Whoever wants to respond may do so.

Mr. **Feragen**. It is interesting, Mr. Chairman, that on Monday both Mr. Partridge and I were in a meeting in Minnesota which both REA and NRECA had sponsored for the purpose of addressing that question with the co-ops themselves. I would not refute your characterization of the change in the perception that consumers have.

It does vary from area to area. I think the problem is, in part, really related to rates. Rural electric systems did a magnificent job of not only providing the power but for a long time were reducing rates. People were tremendously happy and proud of what they had.

Therefore, the confidence levels were very high. That turned around dramatically. My perception is that many of the boards and many of the managers are fearful of dealing with the cooperative as a cooperative and to understand, again, that those people are member owners.

I personally, as an administrator and as an individual who has worked with this program for many years, have warned them as to the consequences of doing that in the long term. I have said it publicly and openly that I think it relates to the security of the loans because I think that the way in which they are perceived by their membership and the action of those members with respect to the co-op can have a lot to do with the economic health of it.

We are doing what we can as a Federal agency without intruding on their rights of freedom of the press and expression. We are encouraging them to have not simply newsletters, but to deal in regional meetings openly and frankly with their consumer owners about the cost of power, about their problems.

I do not see any other way in which they are going to reclaim that high regard that they had in the early days.

I think they are doing a wonderful job. I think it is an enormously difficult job to serve rural areas today with the terrible costs of power supply and the terrible cost of running these businesses.

However, I would agree with you. I do not believe there is an excuse for any co-op manager or for any board to turn its back upon a legitimate member raising questions about the operation.

Mr. **Partridge**. Mr. Chairman, I agree fully with the Administrator. I think that the basic root cause is the rapidly rising rates that they have been experiencing in the last several years.

When you go back to the early history of the program people, of course, were grateful to have that line come down the road and then for the first time get central station electric service and all that it meant to the average farm family. Those days are gone and many of the people who experienced it are gone too.

Today we have quite a different crowd of consumer members who were not there when that line first came and the service first came to their rural area. What they see today is a rapid rise in the cost of energy.

The worst of it is that we are only seeing the beginning of it. Rates are going to be much higher 10 years from now than they are today, unforunately.

There is disenchantment and a concern on the part of consumers and we share that concern.

The Administrator mentioned the conference which we had in Minneapolis on Monday and Tuesday. It focused exactly on that problem and that continuing concern. I think it is going to take a reinvolvement of consumer members and many of the cooperatives are doing that to a degree that never has been done before, I think.

They are attempting to get across to their consumer members what it is that is causing these rates to rise as they are and are sending the signal that the rates are going to be still higher. Beyond that, there is even a concern about whether there will be adequate electric power in the mideighties.

If we continue to have a lengthening of the time that it requires to build and place in service generating plants such as we have experienced in the past decade, then there is a real question in many parts of the country whether at any price there will be a sufficient quantity of electric power to meet needs.

Additionally, as to the question of why the cooperatives have these kinds of problems, having favorable financing as they do, the fact still remains that our density of consumers per mile of line is only about five to the mile. A typical urban utility serves 40 or more per mile.

Our revenue is about one-fifteenth per mile of line that of a typical urban utility system because we are serving the thin areas of the country. Our density is low and our cost of service is high.

Therefore, we have all of these disadvantages which are not wholly offset in many cases by the low-cost financing which we have and without which, I would say, we could not continue to do the job at all.

Mr. Jones of Tennessee. Thank you, Mr. Partridge. We could continue this discussion but my time has expired.

I just want to add this. I happen to be one of those farmers who, at the beginning of REA, went out and without compensation or anything else begged people to give them right of way for the erection of poles and lines and asked them to sign up for the wiring of their homes and things of that sort.

It does tear me up to see some of the co-ops become as bureaucratic as they have. As a member of this subcommittee and as a Member of Congress, if I had the power I would try to help do something about it because I do not subscribe to that attitude. Many of our coops are no doubt contributing to some of our problems today.

I want to remind you, gentlemen, that every time that REA comes before the Congress your problems increase as far as funding and support there is concerned. It is just not like it ought to be.

I yield for 5 minutes to Mr. Madigan.

Mr. Madigan. Thank you, Mr. Chairman.

Mr. McKee, your address on the witness list is St. Petersburg.

Mr. McKee. Yes, sir.

Mr. Madigan. Are you associated with the rural electric co-op that is providing service in St. Petersburg?

Mr. McKee. No, sir. I am an officer and director of Florida Power Corp., which provides, at the moment at least, 100 percent of the energy to the Withlacoochee area among others. There are no cooperative customers in St. Petersburg.

Mr. **Madigan**. So, Florida Power is investor-owned and you are providing the generation and transmission for rural electric co-ops.

Mr. **McKee**. Yes, sir. There are nine in number.

Mr. **Madigan**. I am sure, then, that you also provide distribution services to non-co-op subscribers. Is that correct?

Mr. **McKee**. Somewhat over 700,000 for distribution. Yes.

Mr. **Madigan**. Aside from promotional prices, assuming that the law is successful and there is not going to be any promotional pricing, will there still be differences in electric costs per unit for different kinds of subscribers, residential versus commercial versus industrial?

Mr. **McKee**. Yes, sir. There are differences in costs of service. For example, the residential class would have certain costs. The commercial costs would be different. Public street and highway lighting would be different. Industrial customers would be different.

We have special contracts, for example, with the University of Florida and Walt Disney World. They would be different.

You cannot just sit down and say, "Well, our cost to serve everybody is this, so this is the return that we should get from everybody." You have to isolate by class to determine your cost of serving that class of customer and that does bring about the necessity for differing rates.

Mr. **Madigan**. Within the category of residential customer or residential subscriber, it is possible that different types of residential customers will exist and pay different rates?

Mr. **McKee**. It is possible, yes, but under the jurisdiction of the Florida Public Service Commission, with the minor exception of the rate which is designed to test the feasibility of load management, we must bill all residential customers on the same rate. It is sometimes referred to as a postage stamp rate. We cannot vary the rate to a residential customer from another residential customer. They must all be the same.

Mr. **Madigan**. So, among the 700,000 subscribers to your company, all who may be categorized as being residential will all be paying the same cost per kilowatt hour for electricity. Is that right?

Mr. **McKee**. No; that is not true. We have a customer service charge which is $2.50 per month for zero kilowatt hours, so that the customer who used nothing, who might be away for the month and pull his main switch and not ask for the service to be discontinued, would be billed the $2.50 even though he used no kilowatt hours.

Mr. **Madigan**. Is it possible that someone living in a single family dwelling would have a rate different than someone living in an apartment building?

Mr. **McKee**. No; the rate would not be different. The bill would be different based upon the consumption.

At the moment we do not have, in addition to that customer charge, one flat rate for all residential customers. The Florida Public Service Commission has moved in that direction. We are now down to two steps.

Under PURPA, I suspect in our current hearing, they will probably come up with an order that says, "You must charge for all kilowatt hours this flat rate." I think that is the way it is heading.

Then it would be, ignoring the customer charge, totally the result of multiplying the usage by the rate.

Mr. MADIGAN. Is it correct for me to assume that the industrial rate charged by your company per kilowatt hour will be less than the residential rate?

Mr. MCKEE. As a generalization, that is true, but I want to point out concurrently with that that the return earned on that relative to the cost of capital is higher on industrial than it is on residential.

Mr. MADIGAN. It also has the tendency to encourage the use of electricity in industrial applications, does it not?

Mr. MCKEE. That is a tough question to answer because they complain as much as anyone else does about the rates, primarily because of the fuel cost.

Mr. MADIGAN. But they can make a judgment. For example, an industrial user faced with using electricity as a fuel source in a manufacturing process may look at the cost of the electricity versus the cost of some other fuel plus the cost of the environmental controls that they must bear if they used the other fuel and decide to switch to electricity just to put the environmental costs on you. Is that not correct?

Mr. MCKEE. That is correct. Yes, sir.

Mr. MADIGAN. So the industrial rate being less than the residential rate can serve to encourage that sort of conversion, can it not?

Mr. MCKEE. Yes; I would say that it would work in that direction.

Mr. MADIGAN. Thereby creating a need or a demand for the construction of new and additional generating facilities. Is that correct?

Mr. MCKEE. Generally that is correct. I should also point out that in our area we do not have a large number of large industrial customers——

Mr. MADIGAN. The discussion that we have had here generally would apply to your industry across the country, would it not?

Mr. MCKEE. Yes; generally, it certainly would.

Mr. MADIGAN. My time has expired. I do appreciate your candor. Thank you.

Mr. JONES of Tennessee. Thank you, Mr. Madigan.

Five minutes are now yielded to Mr. Huckaby.

Mr. HUCKABY. Thank you, Mr. Chairman.

Mr. McKee, approximately what percentage of your kilowatt-hour consumption is industrial?

Mr. MCKEE. It is on the order of 13 to 14 percent.

Mr. HUCKABY. Thank you.

Mr. Partridge, in your comments you mentioned that some areas of the country might not have adequate electricity. Where is that?

I was under the impression that last year, in 1979, for the first time since Edison that the growth was flat instead of the historic 7 percentage that we have looked at since World War II in nationwide electric consumption. Do you have certain areas, and where are they, where you foresee a shortfall of generated power?

Mr. PARTRIDGE. Let me say that our growth rate in the usage of electricity across the country is down. I think REA measures it to have been slightly under 3 percent last year as against the historic rate of 7 or more percent and typically for many years 9 to 11 percent. The growth rate is currently down.

However, the work of the National Electric Reliability Council by reliability regions indicates that during this decade we will almost certainly have a shortfall of generating capacity to meet the need, particularly in some of the central sections of the country. The area around the Great Lakes, for example, is a very vulnerable area and there are some other areas as well.

Much depends on whether we really mean it in the United States that we are going on a course of energy independence. If we are, we are clearly going to have to do that with coal and with nuclear for the most part.

Those plants are not being built. The plants which we need by the turn of the century, if they are to be nuclear, must be started by the middle of the 1980's. Plants that we will need by the year 2000, which will be coal, must be started by the end of this decade and currently not very many plants are going into construction.

If there is a shift—and we see the shift occurring now in many areas of the country among the rural electric systems—from the direct use of liquid fuels to electricity—and I think it is in the national interest that we get away from oil, particularly the dependence on foreign oil, and use our domestic fuels as much as we can—then we clearly will have to build a great deal of generating capacity. Something on the order of 500 generating plants are going to be needed by the turn of the century——

Mr. HUCKABY. For rural electric plants?

Mr. PARTRIDGE. No; for the industry as a whole we will need about 500 generating plants of 500 or 600 megawatts each. Absent a construction program that will——

Mr. HUCKABY. May I interrupt you there. What growth rate does that assume?

Mr. PARTRIDGE. That assumes a growth rate of much less than we have had in the last few years, 4 percent or less. It allows for the most stringent kind of conservation.

We, frankly, think this country will be in the grip of an electric energy shortage well before the end of this decade in most areas of the country.

Mr. HUCKABY. Of the 500 new plants, what percentage are replacing oil or gas versus growth?

Mr. PARTRIDGE. The 500 plants, all of them new, will be roughly 300 that are nuclear and which will be required if we meet our needs. They would replace virtually all of the present oil-fired generation in the country except for peaking and standby.

Mr. HUCKABY. My question was: Of the 500 how many of them are for additional demand versus phasing out older generating plants?

Mr. PARTRIDGE. That I cannot tell you but I will be glad to submit it for the record.

Mr. JONES of Tennessee. Without objection, that will be placed in the record on receipt.

[The following information was submitted:]

NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION,
Washington, D.C., June 17, 1980.

Hon. ED. JONES,
Chairman, Subcommittee on Conservation and Credit,
Washington, D.C.

DEAR CHAIRMAN JONES: Thank you for your letter of June 13 requesting additional information for your hearing to determine factors responsible for rate increases.

As a condition to obtain REA insured financing at the standard rate, distribution co-ops are required to borrow up to 30 percent of their capital from a supplemental lender. In order to minimize interest expense, the current supplemental ratios should be maintained and not increased. This has been achieved through adequate Congressional authorizations for REA insured financing.

The need for 500 additional generating units is essentially to meet increased load requirements. Estimates of retirements of existing plants range from four to seven percent of the new capacity, or 20-35 plants.

If we can provide further information, please do not hesitate to call us.

Your interest and support are greatly appreciated.

Sincerely yours,

ROBERT D. PARTRIDGE,
Executive Vice President.

Mr. HUCKABY. On the 300 nuclear plants, I assume you are talking about the year 2000.

Mr. PARTRIDGE. Yes; by the year 2000.

Mr. HUCKABY. Whose goal is that? I have never heard that figure before. Today we have 72 operating plants and another 90 under construction.

Mr. PARTRIDGE. That is correct.

Mr. HUCKABY. Some of those 90 will not be coming on phase until the mid-1990's.

Mr. PARTRIDGE. That is right. These are our own estimates but they are borne out by many others within the industry. You will find figures that are somewhat higher than ours, some a little lower. Those are our own estimates based on the very reduced demand for electric power and taking into account the most stringent conservation measures.

Mr. HUCKABY. Yes; I certainly agree with the hypothesis that you are not going to continue to have the growth rates that you have had, not only because of the additional costs and conservation, but the fact that as your society reaches a certain level of mechanization you reduce your growth.

Mr. Chairman, if I might comment in closing on your statement regarding the attitude and the perception of rural electric co-ops this Friday night I will be attending a local rural electric co-op's annual meeting, as I do each year, in northern Louisiana. There will be some 2,000 to 3,000 members there.

Since 1973 these people have seen their rates go from a little less than one-half of 1 cent per kilowatt hour, one of the cheapest in the Nation, to about 3.5 cents a kilowatt hour today, one of the most expensive in the Nation. It is hard for us to understand why we send all of our natural gas to the Northeast and have to bring coal from Wyoming there.

Yet, these people still realize: "Hey, this is our co-op. We are going to do the best we can." I think they have excellent relationships there between the management, the board of directors, and the members in coping the best they can with the situation.

Mr. **Jones** of Tennessee. Thank you, Mr. Huckaby.

I now yield for 5 minutes to Judge Kelly.

Mr. **Hopkins**. Mr. Chairman, may I interrupt for a second.

Mr. **Jones** of Tennessee. Yes.

Mr. **Hopkins**. I want to learn what the intention of the subcommittee is since we have a 15-minute vote followed by a 5-minute vote.

Mr. **Jones** of Tennessee. We will give him 5 minutes and then we will go vote and come back.

Mr. **Hopkins**. You are going to come back?

Mr. **Jones** of Tennessee. Yes, sir. We may have to be there for a little longer than that because we may have more than one vote. We will ask the witnesses to remain here though.

Judge Kelly?

Mr. **Kelly**. Thank you, Mr. Chairman. Mr. Chairman, I especially appreciated your remarks to Mr. Feragen and Mr. Partridge about the public relations of the co-ops, because I think that this typifies and speaks very well to the issue that I find in my own district where the people find that they are being grossly overcharged by comparison to an IOU [investor-owned utility] and that they cannot get the management to deal with their questions by responding with reasonable answers as to why the charges are higher.

I, as a member of this subcommittee and as a Member of Congress, find that the Administrator and the administration just simply will not cooperate. They will not send any technical assistance, will not appear, and I find that this is unusual as far as Government agencies are concerned.

Mr. Feragen, I hope that you will reconsider and render some assistance to a member of this subcommittee to try and cause the 175,000 people served by Withlacoochee Electric to have some understanding of why their rates are not comparable with an independently owned and taxpaying utility, Florida Power.

Mr. McKee, I have a question for you. My understanding is that Florida Power has not had a rate increase for residential consumers in the last 2 years, or approximately that time period. Am I correct in that?

Mr. **McKee**. Yes. That is correct—that is, as far as the base rates are concerned.

Mr. **Kelly**. In May of this year the base rate for Florida Power for 1,000 kilowatt hours was $25.36 and for Withlacoochee it was $31.08. If you get the rate increase that you have asked for, will Florida Power's base rate—this is minus any fuel charge—go above the $31.08 that is now being charged by Withlacoochee, as far as you know?

Mr. **McKee**. As to what we have proposed by way of rates and the comparable number there, it would still be slightly under that.

Mr. **Kelly**. In other words, if you get the raise you are going after you will still be under the $31.08?

Mr. **McKee**. As to the base rates, excluding fuel, yes, sir.

Mr. **Kelly**. All right. If you get the increases that you are going after, will you then be charging a larger service charge than Withlacoochee? At present you are charging $2.50 and they are charging $6. Will your service charge then be higher than theirs if you get the rate increase that you are asking for?

Mr. McKee. We have proposed to the Florida Public Service Commission that we increase our customer service charge from $2.50 to $6. That was based upon our costs. I was not aware that Withlacoochee had been charging that particular amount.

Mr. Kelly. Withlacoochee, for your information, has been charging that $6 for 2 years or longer. Based on this chart they have been doing it for 2 years.

Is there any reason that you know of why Florida Power could not give to the people in the Withlacoochee service area the same service at the same charges that you are making to your other customers?

Mr. McKee. Let me first hasten to point out that we are not proposing to acquire any cooperatives.

As far as generating capability alone is concerned, obviously, because we are now providing it, we could provide it. Yes. It would have to be at our standard rates.

That does not get into the administrative, general, or distribution area, however. I am not aware of the problems associated with that.

Mr. Jones of Tennessee. Judge, we had better go and vote now. I will yield to you the time when we get back.

I think we will be there for about 30 minutes, gentlemen. You can take a break if you like. I believe there are two votes. The clerk can keep you informed.

[Recess taken.]

Mr. Jones of Tennessee. The subcommittee will come to order.

I would like to advise the members of the subcommittee as well as the witnesses that we will have to stop at 1 o'clock because we have to be back at 2 o'clock. I will be happy to invite any of the witnesses who are here to stay for the afternoon session. We will be glad to have you.

When we left Judge Kelly was asking some questions. Judge, I think when you and Mr. Hopkins have finished I have no more. I do not know whether or not Mr. Madigan has. Nevertheless, you may proceed.

Mr. Kelly. Thank you, Mr. Chairman. There is just one item that I would like to cover briefly.

Mr. McKee, Seminole is getting ready to build two coal-fired plants at Palatka. The prospect is that they will have electricity that they will not need by the time those plants come on line. That means that someone could buy that electricity.

Do you, at the present time, have contracts or do you contemplate contracts with them to purchase their excess at the prices that they have announced or at the prices that it is expected that power will cost.

Mr. McKee. We have discussed it with them at some length, but at the present time we do not plan to purchase it simply because we can meet our requirements at lower costs from other utilities and from our own generation.

Mr. Kelly. Then the prospect is that when they get through with this investment you can get power cheaper somewhere else—either by doing it yourself or by buying it from someone else.

Mr. McKee. At least initially, yes, sir.

Mr. Kelly. Thank you, Mr. Chairman.

Mr. JONES of Tennessee. Thank you, Judge Kelly.

I yield 5 minutes to Mr. Hopkins.

Mr. HOPKINS. Mr. Chairman, thank you very much. I apologize for my absence during the earlier part of this hearing. I had to attend some other meetings.

Mr. Feragen, it concerns me that we do not have a meaningful energy policy in this country. Would you agree with that assessment? Do you think we have a meaningful energy policy for the long term in this country?

Mr. FERAGEN. I think it is very difficult to take something as complex and covering so many aspects of our social life and to characterize it as meaningful or not. I think the administration has tried very hard to address the issues. We may disagree substantially on whether or not the answers are correct.

I think that there is no question of the national objective to get off imported oil as being one that we can all call meaningful. I would agree with some of the witnesses that some of the enforcement of environmental laws may not be considered meaningful or wise because they go too far and that we can have arguments about that.

However, I find it very difficult when we are looking at the entire panoply of options—for instance, nuclear power and those conflicts—to say what a meaningful policy is. From my own personal point of view I think a policy—which is the one the administration supports—of developing nuclear power in a safe manner is a wise and a meaningful one. I am sure there are people in this room who would not agree with that because they have fears about nuclear power.

I think that the struggle to formulate a meaningful national policy is a very complicated one. We are never going to get national agreement as to whether it is meaningful or correct.

Mr. HOPKINS. What is REA doing that is meaningful?

Mr. FERAGEN. We have addressed the energy crisis. First of all, we are a lending agency. We are not an R. & D. agency.

We have picked up the President's call for conservation in a very meaningful way, I think, in developing the section 12 deferment which will permit the cooperatives to delay the repayment on their loans if they will turn around and use that money to lend to their consumers to get weatherization done quickly, immediately, as a conservation effort. We think it will save literally millions of dollars in costs to the consumer.

Mr. HOPKINS We have tons of coal in this country. In your opinion, why are we not using more of it?

Mr. FERAGEN. I think we have, as was addressed here by Mr. Kumins, a lot of problems in the regulation of the mining of coal. That is one reason why it has been slowed down. I think that is unfortunate. I think Congress and the administration ought to address that very sharply. I think we see the development of coal in the Great Plains and the West coming on very rapidly, on the other hand.

Mr. HOPKINS. We cannot all just stand around in a circle with our hands in each other's pockets in this country and thereby somehow become rich. Whose fault is this? Is it REA's? Is it the oil companies'? Is it the utility companies'? Is it the Congress? Is it the administration?

Why are we not moving along in a more meaningful way in all the areas to make us less energy dependent and have a meaningful energy policy in this country?

Mr. **Feragen.** My answer to that would be that we thought that cheap oil was going to last forever and it did not. Now we are all paying the price.

Mr. **Hopkins.** That did not surprise anyone. Everybody knew that.

Mr. **Feragen.** I am not sure that everybody did. I say that respectfully. I think that our habits of driving, of using energy—suddenly, gasoline costs about $1.25 a gallon. It is taking money from people that was used for other purposes to pay for energy now. It has become a major, gnawing issue on the body politic.

Five or 10 years ago, this kind of sharp concern about energy simply was not around the country because we had cheap oil.

Mr. **Hopkins.** Mr. Chairman, I would like to ask one final question.

Mr. Feragen, I hope you understand that the nature of my questions are not meant to be in a derogatory manner. I am just trying to do my job and get the best answers I know how.

Mr. **Feragen.** Yes, sir.

Mr. **Hopkins.** If it did surprise some people that we were not going to have cheap oil anymore, it certainly is not a surprise any longer. What are we doing about it in this country? What are we not doing that we ought to be doing, in your opinion as an expert in energy?

Mr. **Feragen.** First of all, I think we need to build the conventional powerplants to supply energy—that is, nuclear and coal plants. I think we ought to do that on a broad basis together with sensible conservation efforts because I think they go together.

I am not a no-growth advocate. I do not think the administration is.

Second, I think we ought to devote lots of resources to new supplemental energy sources and that includes small and large hydroelectric, because they are clean. It can be handled; it is renewable energy.

We ought to do the same for wood, the utilization of wood chips, and biomass.

At the same time, I think we ought perhaps to devote a lot more money to fusion power and the future of the hydrogen economy which will then, I think, eventually—after the year 2000 maybe—literally change this situation around so that we get into an era of plentiful energy.

Mr. **Hopkins.** I appreciate your answer.

Mr. **Feragen.** I understand your concern.

Mr. **Hopkins.** I appreciate the indulgence of the Chair.

Mr. **Jones** of Tennessee. Thank you, Mr. Hopkins.

I do want to ask another question, if you do not mind.

Mr. **Kelly.** Mr. Chairman, I want to ask unanimous consent to be permitted to have 5 additional days to submit written questions to the witnesses because of the shortness of time.

Mr. **Jones** of Tennessee. Without objection, all members may have 5 days.

Mr. **Kelly.** Thank you, Mr. Chairman.

Mr. **Jones** of Tennessee. I will give you a chance to ask another question or two if you want.

Mr. McKee, I have just a quickie or two. How much of your generating capacity is in oil?

Mr. McKee. At the present time we have, in round numbers, 900 megawatts in coal. We own 90 percent of our nuclear unit. We have 740 megawatts there. That gives us 1,640. Our total is almost 5,000, so about 65 percent would be in oil.

That does not mean that in a year's time that 65 percent of our fuel used would be oil because we try to run the coal and the nuclear whenever they are available. We expect this year that our oil, however, will be as high as 50 percent of our fuel usage. It is about 65 percent of our capacity. That includes the combustion turbines which use the distillate oil No. 2——

Mr. Jones of Tennessee. Are you saying that this year it will be about 50 percent?

Mr. McKee. We have a goal to reduce that. We are only building coal-fired units at the moment. We have three small 50-megawatt peaking units under construction to be completed in October and we plan no more combustion turbines during this decade, only coal-fired units, in order to meet the President's goal of a 50-percent reduction in oil usage. We think if we can build the plants and get the money to build them, we think we can meet that rather handily.

Mr. Jones of Tennessee. What does that mean that you have in coal now? What percentage of that is in coal?

Mr. McKee. It is close to 18 percent.

Mr. Jones of Tennessee. Nuclear is the rest. Is that right?

Mr. McKee. Yes, sir.

Mr. Jones of Tennessee. That is 32 percent that is nuclear. Is that right?

Mr. McKee. Yes.

Mr. Jones of Tennessee. That is an interesting figure.

Mr. McKee. Let me recalculate that——

Mr. Jones of Tennessee. Let me ask you one other question even though we are pressed for time. Would Florida Power Corp. have any problem in entering into a joint ownership with rural electrics, the G. & T.'s?

Mr. McKee. Was the question: Would we?

Mr. Jones of Tennessee. Would you have any problem in entering into a joint ownership agreement?

Mr. McKee. No; we have one at the present time. Seminole does own 1 percent of our nuclear plant and a number of municipalities own another 9 percent. We own 90 percent.

On future units beyond the two that are currently under construction—Crystal River No. 4 and No. 5—our outlook is that we may not have any options financially, whether we need the capacity or not, but to jointly participate. We have indicated a willingness in the past to participate with the cooperatives as well as with the municipalities and we will continue to do so.

Mr. Jones of Tennessee. In other words, what you are saying is hat you are not objecting to taking a look at a joint ownership venure.

Mr. McKee. We have no objection whatsoever.

Mr. Jones of Tennessee. Thank you very much.

Mr. Madigan, I believe you have a question.

Mr. Madigan. I have one for either Mr. Partridge or Mr. Feragen.

Do either of you gentlemen know of any instances wherein investor-owned utilities generating electricity for co-ops have been advising co-ops that in the next 10 years those co-ops will have to establish another source of electricity?

Mr. **Feragen**. Yes; there are a number of them, Mr. Madigan. One that comes to mind immediately is the Gulf States Utilities in dealing with Louisiana cooperatives. They have suggested to them that they should find an independent power supply.

I hasten to add that they do agree that they will continue contractual arrangements somewhat different than the oil requirements that they had in the past.

Bob Partridge may know of other specific examples. That is happening in a number of places.

Mr. **Partridge**. Yes; I would hesitate to try to recount all of them from memory that there are. Typically the joint project approach is the outgrowth of a determination by an investor-owned utility that, for a variety of reasons, it will not be able to continue to meet the wholesale customer needs in the future as it has in the past.

In consequence, the cooperatives have been buying into generating plants of the investor-owner utilities. The Georgia cooperatives, in the development of their joint approach with Georgia Power Co., is a good example and there are many others. I suppose we could supply them for the record if it would be useful. We would be glad to supply other specific instances if you wish.

Mr. **Madigan**. Let me then see if my conclusion is correct. If a co-op has been buying electricity from an investor-owned generating company where their plant or plants were built in the past at costs considerably less than what a new plant would be now, and if they are being told that they are no longer going to be able to enjoy the purchase of elecricity from those older plants and must either buy their own new plants or buy a portion of somebody else's new plant in order to get the same amount of electric power, then that obviously is going to impact quite a bit upon the bill of the people who are subscribers of that co-op, since to get the same service they are going to have to get it from a new and more expensive source.

Is that correct?

Mr. **Partridge**. Yes; I think that is essentially the result of it. Quite naturally the investor-owned utilities are, of necessity and as a matter of prudent business management, I think, going to have to make maximum use of the lowest cost facilities that they have. They are doing that.

It is resulting in much higher cost construction for the capacity which the cooperatives will have to rely upon for their future supply. In many cases there are joint projects with other utility systems that they are developing.

Mr. **Madigan**. It does not necessarily reflect the desire on the part of a co-op to expand or to own their own facilities, of anything like that. It is just a question of their being able to stay in business under the terms being proscribed to them by the people who had previously been providing their power.

Is that correct?

Mr. **Partridge**. Yes; that is correct, Congressman Madigan.

Mr. **Madigan**. Thank you very much.

Thank you, Mr. Chairman.

Mr. Jones of Tennessee. Thank you, Mr. Madigan.

Judge Kelly, do you need a little bit more time?

Mr. Kelly. I just have a couple of items, Mr. Chairman.

Along this same line, that situation that you described is not uniform in every system in the United States, is it, namely, that they have been notified that the IOU's will no longer furnish power?

Mr. Partridge. No; I think that is correct. It is essentially a State-by-State power supply grid type of situation. It is not uniform across the country.

Mr. Kelly. Thank you. I just wanted to clear that up.

I would like to ask Mr. McKee this. Does Government regulation run up the cost of the building of generating facilities? I mean, does it have any impact at all?

Mr. McKee. It is terrible.

Mr. Kelly. I see, terrible. Could I ask you this? Is the fact that those regulations are not stable—in other words, if you start to build a plant today and you do not know what the regulations are going to be tomorrow, does that cause you some problems? You said you are on the board of directors. Does that cause the board any trouble when they know that they are getting ready to get into something that is heavy and they really do not know what they are getting into because of the instability of regulations?

Mr. McKee. Yes. The major problems have been with the Environmental Protection Agency in the past and they still continue. However, we have made the conscious decision at the board level that we will not even consider building a nuclear plant until there is some stability.

We have been told for about 8 years now that there was going to be some stability but we do not see it.

Mr. Kelly. I am correct then. It is not just the regulations but it is the fact that the regulations are not stable. You cannot make an investment and depend on that situation.

Let me ask you something else. Have you heard it said or does anyone in your organization place any credence on the proposition that inflation is caused, in principle, by the fiscal and monetary policies of the U.S. Government? Have you ever heard anybody say that?

Mr. McKee. I am sort of an amateur student of economics and as far as I am concerned inflation is made right here in Washington.

Mr. Kelly. I see. Does the fact of the Federal Government in the money market in the massive way that they are—in allocating credit, overspending, borrowing, doing all of the things that they are doing in the money market—have any impact on your ability to go to the money market and find a ready supply of money at prices that would be attractive to you in building generating equipment?

Mr. McKee. If there were no direct borrowing by the Treasury or no borrowing for agencies, obviously the cost of money would be very much lower.

Mr. Kelly. All right. So, when you get right down to it the Government, other than keeping the Russians off you, are not the biggest friends you have in this world.

Mr. McKee. I will tell you this very frankly. I have been in this business since 1954 and an officer since 1966. They have just about taken all the fun out of it.

Mr. Kelly. I have just one more question, Mr. Chairman.

The proposition is this: When Members of Congress ask you what you are doing about America's energy problem, your answer is: "Waiting to see what the politicians are going to do next." Is that a fair characterization of the way you live your life?

Mr. McKee. No; not completely, I would say, Mr. Kelly——

Mr. Kelly. Is it something like that?

Mr. McKee. We live in constant fear of what you are going to do for or to us. [Laughter.]

However, we try to—I guess you would say—navigate through very, very difficult straits with some consistency.

As far as your point about consistency is concerned, it is extremely important because, for one example, when you go to talk to Standard & Poor's or Moody's in New York—of course, they rate bonds and they are extremely important. They are looking at the long term. Their first and foremost concern is consistency and continuity of regulation.

Until they see evidence of that, when you have a change in regulation as we had last year in Florida, it does not matter to them what the numbers are for coverage purposes. They will not improve your rating because they are scared to death of the inconsistencies of regulation.

Mr. Kelly. Is it not interesting to hear the Government administrators and bureaucrats here complaining about the Government regulations and what they are doing to us environmentally, and all of that? That makes you smile, Mr. McKee.

Mr. McKee. Yes. I hope that when you all help them out, as far as the environment is concerned, you will help us at the same time.

Mr. Kelly. Thank you, Mr. Chairman.

Mr. Chairman, I would like to say that I sincerely appreciate the chairman and the members of the committee having this hearing. It has been a very real sacrifice and I appreciate it.

Mr. Jones of Tennessee. Thank you very much.

Mr. Daschle, a member of the subcommittee, has indicated that he has a question or two that he would like to ask.

We agreed that we would quit at 1 o'clock and we have not, so you may go ahead and we will just delay our afternoon hearing a little bit.

Mr. Daschle. Mr. Chairman, I apologize for being late. I hope I am not covering a lot of old ground. I only wanted to ask two questions and they are very interrelated.

I want to ask Mr. Feragen if he could advise the subcommittee as to just what the REA is doing to advise the rural electric cooperatives on two things: first, load management techniques and, second, energy conservations.

Perhaps, following that, if Mr. Partridge has any additional comments to make on that, those are really the only questions I would like to follow up on.

Mr. Feragen. Yes, Mr. Daschle. We have a very active program in both. I did mention earlier that we have initiated a section 12 deferment program which is meant to encourage the cooperatives to see that weatherization is put into homes as soon as possible. We are going forward with that program. We probably will actually permit them to advance funds this month.

On load management, we do have a branch of REA devoted to that. We have, I think—and I will correct the figure for the record—over $160 million worth of loans pending now for system and load control purposes. We do consult with our members and we urge them to, wherever possible, conduct load control. I will correct that figure for you but it is a substantial figure based on the co-ops indicated interest, particularly in the Great Plains where irrigation is such an important load and is so difficult to handle.

Mr. **Daschle.** Mr. Partridge, do you have anything to add to that?

Mr. **Partridge.** Only that the REA initiatives in these areas have been extremely helpful and, we think, important.

The cooperatives themselves, of course, are doing quite a bit in this regard too. Congressman English asked me earlier what we were doing in some of these areas.

I failed to mention the work that we are doing through the Electric Power Research Institute in many of these fields of energy conservation utilization and basic research into all kinds of ways to increase the efficiency, reduce the cost. We are financially participating in EPRI (Electric Power Research Institute) as well as in the program activities of the research institute.

Mr. **Daschle.** I thank you both.

Thank you, Mr. Chairman.

Mr. **Jones** of Tennessee. Thank you, Mr. Daschle.

Thank you, gentlemen. You made good witnesses. We appreciate your time, interest, and the responsibility that you have demonstrated here today to us.

As I said, we would be glad to have any of you who can remain until this afternoon.

I would like to ask unanimous consent to delay the afternoon hearing until the time of 2:30 to give us time for at least a lunch break. We should be back here promptly at 2:30 when Mr. George Fife will be the first witness.

The meeting is recessed until that time.

[Recess taken.]

AFTERNOON SESSION

Mr. **Jones** of Tennessee. The Subcommittee on Conservation and Credit will come to order.

When we recessed for the noon hour, which was at about 1:15, I announced that we would come back at 2:30 and that the first witness would be Mr. George Fife, the cochairman of the Select Professional Committee on Electrical Utilities and Services of Hudson, Fla.

He is accompanied by Mr. and Mrs. Sidney Cottrill of Hudson, Fla., and Mr. and Mrs. Samuel J. Friedlander of Hudson, Fla.

I am going to yield to Judge Kelly for an introduction that he would like to make.

Mr. **Kelly.** Mr. Chairman, while these people are coming forward, I might give the chairman and the subcommittee an explanation. When I first received petitions regarding the rate difference between Withlacoochee and Florida Power, I met with the people that presented the petitions in a fairly formal setting and at that time explained to them that the difficulties of my gathering the information that would be necessary to proceed onward would be almost impossible with the staff that was available to me because there needed to be a specialized technical staff in order to accomplish the task.

Out of that came a volunteer professional staff. The people who are here are members of that professional staff. They are all members of Withlacoochee Electric Co-op. Mr. George Fife is the chairman of that group.

I join the subcommittee in welcoming you, gentlemen and your ladies. I appreciate the leadership that you have shown in this matter and appreciate the fact that you are here to give your testimony.

Thank you, Mr. Chairman.

Mr. JONES of Tennessee. Thank you, Judge Kelly.

Mr. Fife, Mr. Cottrill, and Mr. Friedlander, we would be glad to have the ladies here too if they would like.

Mr. Fife, I believe you will lead off today.

STATEMENT OF GEORGE A. FIFE, COCHAIRMAN, SELECT PROFESSIONAL COMMITTEE ON ELECTRICAL UTILITIES AND SERVICES, HUDSON, FLA.; ACCOMPANIED BY SIDNEY COTTRILL AND SAMUEL J. FRIEDLANDER

Mr. FIFE. Mr. Chairman, before we start, I would like to note that the prepared statement which was issued will be a matter of record for the subcommittee.

Mr. JONES of Tennessee. Without objection, the entire statement will become a part of the record.

Mr. FIFE. It is 46 minutes of testimony and we are going to try to condense it to 10 minutes, which will be quite a job. We were just given the notice this morning at 10 that we had to do it that way.

I would like it to be noted first that my colleagues who are sitting with me have come at their own expense. We are a totally unfunded group. We have not received one cent of money from anyone.

My name is George A. Fife. I currently reside at 219 Club Wildwood in Hudson, Fla. Today I appear before you as the spokesman for the Select Professional Committee on Electric Utilities and Services. The select committee, as we have become known, evolved out of concern among individuals in the area of the Fifth Congressional District of Florida about their electric rates and their steep and steady increase.

Our concern in these matters as individuals dates back some 5 to 7 years. About a year and a half ago, these individual concerns began to coalesce in various service and civic organizations, first in West Pasco County and later in portions of Hernando, Citrus, and Pinellas Counties as well—roughly, the service area of the Withlacoochee River Electric Cooperative.

As we learned that our wholesale electric rates had soared by over 400 percent in 5 years, our concern turned to alarm and than to action. A petition containing over 16,000 names was submitted to our Congressman, Richard Kelly, requesting that the matter be investigated.

Of special concern to the petitions who represent all shades of political pursuasion was the fact that the rates charged by Withlacoochee, an REA cooperative, were significantly higher than the rates charged by Florida Power, a private investor-owned corporation.

Congressman Kelly suggested that a committee be formed from among the petitioners to work with him in identifying more precisely the problems. The select committee, on a purely volunteer basis, came into being to assist our Congressman and has gradually taken on an independent existence dedicated to a rational solution of our energy supply problems.

Coming from an area populated with highly qualified retirees, a well-rounded committee with a truly extraordinary range of talents was quickly formed. A list of our more active members with a short résumé of each is attached to our presentation for the record.

It is sufficient here for me to simply note that our group includes a retired chairman of the board and chief executive officer of a major North American utility, professional engineers, master electricians, auditors, accountants, private businessmen, retired corporate executives, and former State and Federal government employees with distinguished careers in the public service.

In summary, Mr. Chairman, we are an ad hoc, nonpartisan committee, qualified by proven experience to represent over 16,000 petitioners who are concerned with their electric service and its national implications.

Let me begin with some negatives. Although we have been critical of REA, and will continue to criticize it when we feel it is justified, the select committee is not against REA. Very much to the contrary, we fully realize the vital role REA has played in the agricultural leadership of our Nation. We know how well they have served our Nation over the years.

Too many of our own members were born and raised in rural America for it to be otherwise.

Furthermore, the select committee has no illusions about the seriousness of the energy problem facing our Nation. The days of cheap energy are over. We do believe, however, that burdens of the ever-escalating energy costs have become so great that the time has come for consumers, utilities, and other electric representatives to join hands to insure as equitable a sharing of these burdens as possible.

At this point, gentlemen, I would like to review as quickly as possible the complex issues which the select committee encountered in trying to obtain an answer to what proved to be a deceptively simple question. You will recall that I said this whole matter began when average, individual residential consumers of Florida Power and Withlacoochee, sometimes living across the street from each other, noted that the energy supplied by our cooperative was significantly more costly than that supplied by Florida Power. Their natural question was: Why?

To all outward appearances, service was comparable. The demand was about the same, yet Florida Power was a privately owned corporation that had to pay taxes that the cooperative did not pay. It had to pay dividends to its stockholders and it had to raise its capital in the open market without access to the lower cost funds available to REA cooperatives.

It is interesting to note that consumers in our area have still not received a straightforward, quantitative answer to their question.

In May 1973, the Florida Power Corp. charged for 1,000 kilowatt hours, including the consumer's service charge, $20.82, whereas the Withlacoochee co-op members paid $20.53, 29 cents less. This was in May 1973.

The ensuing reversal of cost positions discloses that in May 1980 the co-op members paid 22.6 percent more than the Florida Power Corp. customers and is indicative that something is drastically wrong.

It is also apparent that the methodology used to structure rates for co-ops has worked to defeat the original congressional intent: to provide electric service to rural areas at reasonable and economical rates.

Mr. Chairman, many people in our area simply cannot afford even a frugal, dignified energy at $68 per 1,000 kilowatt hours. This is a social problem that affects not only retirees, but also our young people trying to get a start and raise their families.

Many of our REA cooperatives have become misnomers. They are no longer rural. Some have been overtaken by urban sprawl, as in this very Washington area. Some, like ours, have been drastically altered by the massive population shift to the Sun Belt.

In a demographic makeup of a typical Sun Belt service area, it appears virtually self-evident to us that what may pass for good, or even excellent business practice for a typical rural area may be quite inappropriate and burdensome for one that has become urban or exurban.

There are two final items in this category that our committee plans to study carefully in the months ahead. To date we have only been able to determine that they urgently need attention. Both will probably eventually require Federal regulatory and statutory action.

One involves the distribution of low-cost Federal power to REA member cooperatives under the Southeast Power Administration, the so-called SEPA power. The other is the alarming cost of implementing the mass of reporting regulations imposed. Very preliminary estimates put the cost of implementing new reporting requirements this year alone in our cooperative at perhaps a quarter of a million dollars.

A substantial number of the people of this Nation simply cannot survive much longer under business-as-usual conditions. Especially hard hit are our younger citizens and those of us among the retired who are on fixed incomes. The problem we bring to you in these hearings is not a local vendetta, but one of truly national dimensions which will require the very best efforts of all of us if we are to avoid a social problem whose dimensions we can only barely discern.

Our examination of this matter demonstrates, we believe, that a great number of the problems which contribute to the overall economy of electrical energy supply as at reasonable prices as possible trace back to regulatory and even statutory complications, impediments, and confusion. It is this, Mr. Chairman, which has brought us to your door today.

We ask that in the interest of our Nation you, our elected representatives, assume your rightful role of leadership in framing a new order for the supply of electric energy within the REA system. We know, however, that even the wisest legislators cannot operate in a vacuum.

Accordingly, here and now, on behalf of the over 16,000 citizens who first exercised their constitutional right to seek redress by approaching our representative, Congressman Kelly, we wish to respectfully offer our area as a case study for a thorough examination of the problems I have touched on in this presentation. Such examination will no doubt reveal other areas that require study.

We would not presume to suggest whom you should ask to do this study for you. We do, however, pledge ourselves and our talents in the service of whomever you may select.

In order that such a study may have a chance of being tangibly productive, we would suggest that you require whoever does the study for you to render a preliminary report within 6 months.

Thank you, Mr. Chairman, for providing this opportunity for the select committee to present its views.

We are also highly appreciative of the help our Congressman, Richard Kelly, has given us. His direct support and assistance has made it possible for this group to be here.

Several of my colleagues on the committee are present here today with me. We will be pleased to try to answer any questions you or the other members may have. If we do not have the answers at this time, we will endeavor to get them for you.

Now, Mr. Chairman, may I interject this. I personally am proud to stand here and represent the Select Professional Committee on Electric Utilities and Service. I have never worked with a more dedicated group of individuals, dedicated to the ideal and principles of democracy. They represent hundreds of years of service to North America since they first learned at the age of 6 the Pledge of Allegiance to their flag.

Thank you again, Mr. Chairman.

Mr. JONES of Tennessee. Thank you very much, Mr. Fife, for a good statement. You almost made it 10 minutes. I assure you that we will take cognizance of the entire statement. Without objection, it will be inserted in the hearing record at this point.

[The prepared statement of Mr. Fife may be found on p. 99.]

Mr. JONES of Tennessee. We will read your statement, even if it does take 46 minutes, and will give it some real consideration.

I appreciate the fact that you and your group are here at your own expense, which is an unusual situation. Someone usually is sent at somebody else's expense.

Mr. FIFE. We are totally unfunded, sir.

Mr. JONES of Tennessee. We are glad you are here. We appreciate very much, Mr. Cottrill, Mr. Fife, and Mr. Friedlander, your being here also.

Let me say to you while you are seated at the witness table that Judge Kelly requested some time ago that we have a hearing and we had to work out a time when we could have it. We regret that we could not hold it in Florida. However, at this time of the year it has passed the time when we go out and try to have hearings. That has been so for the last 3 months, in fact. We felt that this was the only place we could afford to have it at this season of the year.

You can see that we have had to recess two or three times today in order to get some rather important votes accomplished. If you will step aside until we have finished with the other witnesses, we will call you back.

The next witness is Mr. Ken Holum, general manager of Western Fuels, Washington, D.C.

Mr. DASCHLE. Mr. Chairman?

Mr. JONES of Tennessee. Mr. Daschle?

Mr. DASCHLE. I would, at this time, like to join the committee in formally welcoming Mr. Holum. He has been a constituent of mine for many, many years, longer than I have been a Congressman, I should say.

He has been an active public servant in many roles. I am delighted that we have had the opportunity this afternoon to invite him to come before the subcommittee.

If I may, I ask unanimous consent to insert a statement that was sent to me by the South Dakota Resources Coalition. If there is no objection, I will insert their letter at some point in the record.

Mr. JONES of Tennessee. Without objection, it will be inserted in the record, at least for research purposes.

[The letter referred to above follows:]

South Dakota Resources Coalition
Volunteers in the Public Interest
Drawer G, Brookings, S.D. 57007

May 29, 1980

Congressman Tom Daschle
Conservation and Credit Subcommittee
House Agriculture Committee
Washington, D. C. 20510

JUN 2 1980

Dear Tom:

Since it is not possible for me to be present to testify at the subcommittee's hearing on rural electric rates on June 4, I would be most grateful if you would read this letter into the hearing record.

As you are aware, the rate setting activities of South Dakota's rural electric cooperatives are not under the jurisdiction of the state Public Utilities Commission. Rather, the co-ops themselves are the sole judges of how much power is needed, how to supply it and how much to charge for it. This, coupled with the co-ops' self-image as an industry to which growth is essential for health and survival, does not make for the best interests of electric consumers.

Although the 1976 legislature instructed the Public Utilities Commission to "develop a policy alleviating the financial burden to electric and gas consumers of the declining block rate structure," the cooperatives continue to resist rate reform and cling to declining block rate pricing. In my own cooperative, Sioux Valley Empire Electric Association, farm and residential users this year have paid 6.33¢/kwh for 300 hours, 5.5¢ for 700, 3.7¢ for 1500 and 3.26¢ for 5000 kwh. The cooperatives say that rates must be based on the costs associated with providing service. However, what they do not recognize is that not only do some classes of users require more expensive transmission facilities, but they also require increased baseload generating capacity which raises costs for all consumers. Extra generating capacity must also be built to handle peaking requirements. Operation costs become higher, especially when oil-fired peaking plants are turned. Wholesale power suppliers, like East River Electric Power Cooperative serving 24 member distribution systems, spread those higher peaking costs over all their customers, thus penalizing off-peak electrical users and effectively subsidizing those customers whose peak usage corresponds with the supplier's peak demand.

According to East River Electric, the largest proportion of its continuously substantial program of adding substations, transmission lines and other upgraded facilities is to serve irrigation. While irrigators represent a very small percentage of customers, they have necessitated a massive construction program whose costs are being paid for by all cooperative members.

Basin Electric Power Cooperative which supplies 58 percent of East River's power raised its rates four times between January, 1978, and July, 1979 in increments which totaled 78.7 percent. Basin's steeply rising rates are the result of its massive construction program that in 1979 required $710 million of its $795

SDSU Great Plains Alpine Club • Lakota Audubon Society • Black Hills Energy Coalition
National Catholic Rural Life Conference, Sioux Falls Diocese • CRUD (Community Recyclers of Usable Discards, Sioux Falls)
Dakota Environmental Council • Friends of the Earth, South Dakota Chapter • South Dakota Lung Association
Brookings County National Farmers Organization • Lake County National Farmers Organization • South Dakota Ornithologists Union
Dakotah Chapter of the Sierra Club, South Dakota Section • Soil Association of South Dakota
• Upper Sioux River Basin Conservancy Council
(THIS PAPER IS [illegible] PERCENT RECLAIMED WASTE PAPER)

million budget. By 1982 interest costs alone will consume 35 percent of the total budget or more than $106 million—$21 million more than fuel costs.

Rural electric consumers must pay for Basin's construction program which may be in anticipation of massive industrialization on the Northern Plains. Basin already serves large industrial loads in Wyoming and North Dakota where such loads accounted for 61.4 percent of total co-op sales in Wyoming and 32.2 percent in North Dakota in 1976. In 1977 in my own cooperative, Sioux Valley, large industrial users paid an average of 1.71¢/kwh while farm and residential users of 1000 kwh paid 3.26¢/kwh and those using 500 kwh paid 4.26¢. Large industrial users accounted for 12.2 percent of the cooperative's total electric sales in 1977. In 11 other South Dakota co-ops the proportion of sales to large industrial users ranged from 11.5 percent to 26.1 percent in 1976. In one co-op a single large industrial user consumed 19.4 percent of the power distributed by that co-op at a cost of 1.60¢ per kwh. The question arises as to whether large industrial customers are paying an appropriate share of the costs of Basin's proliferating generating capacity and whether other rural electric consumers may not be subsidizing them as an increasing amount of expensive coal fired power is blended with a decreasing proportion of inexpensive hydropower. A fixed allocation of hydropower at slightly more than 5 mills that a decade or so ago was adequate for most of the co-ops' needs now is sufficient for only 42 percent. Basin supplies the rest of the power used by East River's 24 member systems at about four times the cost of hydropower.

Since the rural electric system nationally had a growth rate of only about three percent last year and the national growth in demand overall was only 0.5 percent with a 43 percent overcapacity predicted for the national grid system in 1980 (Electrical World, Sept. 15, 1979), it is appropriate to ask whether Basin's customers will need all the generation capacity that Basin is building and planning. It is we rural electric rate payers who must pay for overcapacity and for the captivity of our local co-ops to power suppliers through all-requirements contracts. These contracts lock in the co-ops to increasingly expensive centralized fossil fuel power production; they are not conducive to the promotion of energy conservation by the co-ops; and they militate against not only the consideration of local/regional alternatives but also against REA-suggested programs in local co-ops that will enable individual consumers to become more energy self sufficient.

Last year Basin Electric began operating a new oil fired peaking station in South Dakota. About $2.5 million worth of fuel oil was consumed in the first year of operation. It is hard to understand how REA can carry out its charge to devise the most economic and efficient system and permit loan funds to be used for oil fired peaking when the systems to be served are doing very little to reduce or spread peak loads. My local co-op has been promoting electric heat in a manner reminiscent of the 1950s under the flag of saving oil. Yet combinations of preferable alternatives like passive and active solar heating, wood and combinations of these with or without electricity and oil receive relatively little attention. Direct load management is ignored. In fact, South Dakota co-ops opposed a proposed Public Utilities Commission rule calling for a "description of existing and planned load management programs and policies to discourage inefficient and excessive electric power use and production." They also opposed the inclusion of the effects of various rate designs on their ten-year plans filed biennially with the Commission.

It appears that while rural electric cooperatives continue to render invaluable services to rural consumers some changes in philosophy and operating methods are indicated if those consumers are to be served at the lowest possible cost.

Thank you,

Esther R. Edie, Chair

Mr. Jones of Tennessee. Tom, you should have told us that you had a constituent outside of South Dakota. We did not know that.

Mr. Holum, we are proud of Tom Daschle. He does a good job here.

STATEMENT OF KENNETH HOLUM, GENERAL MANAGER, WESTERN FUELS ASSOCIATION, INC,

Mr. Holum. Thank you, Mr. Chairman. Thank you, Congressman Daschle and members of the subcommittee.

If I may begin on a personal note, I have spent many hours in the witness chair on this floor of the Longworth Building. In spite of the fact that I am a farmer from Congressman Daschle's district in South Dakota, this is the first time that I have appeared before the Agriculture Committee. I am happy to have the opportunity to do so.

Also on a personal note, another one that I must mention to you, all of this equipment that I am wearing in my ears indicates that I have a hearing deficiency. It does not mean that the equipment that I am wearing solves that problem.

Recognizing from long experience that congressional committees are busy and that your time is important, I have always tried to make my statements as brief as possible. I believe I will serve your interests best if I share with you the words that I prepared yesterday trying to make them as concise as possible.

Western Fuels Association is a nonprofit cooperative corporation organized under the laws of the State of Wyoming. I have been general manager of Western Fuels from the time of the organization's incorporation in 1974 until the present time.

Western Fuels' members are rural electric cooperatives, municipal electric utilities, and public power districts. The organization secures fuel for its members and arranges for the delivery of that fuel from the place where it is produced to the point where the member converts the basic fuel to electric energy for distribution to the member owners at the end of the line.

Western Fuels now has 28 members. Pacific Northwest Generating Co., serving rural electric cooperatives in Washington, Oregon, and Idaho, became our 24th member. The North Carolina Electric Membership Corp., headquartered in Raleigh, N.C.; and Seminole Electric Cooperative, Inc., headquartered in Tampa, Fla., extended our membership to the Atlantic seaboard. Fifteen of our members are rural electric generation and transmission cooperatives.

We are a comparatively new organization. We delivered our first coal in the spring of 1979. The first trainload was destined for New Roads, La., after being loaded on barges in St. Louis. At about the same time a different train was loaded at another Wyoming mine with coal to be delivered to the Laramie River Station near Wheatland, Wyo. We expect to deliver over 5 million tons of coal in 1980 and approximately 18 million tons in 1983.

Western Fuels' rapid growth suggests that those who proposed that consumer-owned electric utilities organized for joint effort with respect to fuel supply have created an entity which others see as performing a useful and important function.

Simply stated, the Western Fuels' mission is securing fuel at the lowest possible price and delivering that fuel to the point of electric power generation at the cheapest cost per million Btu's that is consistent with adequate reliability and satisfactory environmental standards.

Although we have been operational little more than 1 year, our experiences to date confirm our expectation that cost savings can be achieved by the cooperative effort that Western Fuels exemplifies. We see significant evidence that we receive more attention in the marketplace as we bargain for coal. We believe that this fact will translate itself into cost savings for the ultimate consumer.

We have contracts in place with six energy producers in Wyoming and Montana. These producers are all major energy companies. Under these contracts Western Fuels controls in excess of 250 million tons of coal that will be mined and delivered over the next 25 years. We do control another 50 million tons of coal, 300 million tons total, but that is under preference right lease applications and is a different arrangement with another energy company.

Because these are Western Fuels' contracts we can manage deliveries so as to achieve the best possible economic results for our members.

Similarly, Western Fuels negotiates railroad tariffs and contracts with carriers and acquires and manages rolling stock when carrier-owned equipment is not available. Because we manage a large and growing fleet of railroad cars, we are able to utilize these cars to the maximum economic advantage for our members.

Having said all of this, we must recognize that no matter how hard they try—and in my lifetime of working with rural electric cooperatives, I can say they try hard—there is no way they can avoid the economic impacts associated with serving electric power to thinly populated rural areas. Simultaneously they are punished by ever increasing costs of acquiring and developing boiler fuels, rampant and uncontrolled inflation and high cost capital, and the high cost of transporting boiler fuels, particularly coal, over an inherently noncompetitive rail system.

As noted earlier, South Dakota is my home State. It was in South Dakota that I helped organize a distribution cooperative and it was in South Dakota that I later helped organize East River Electric Power Cooperative, a generation and transmission cooperative.

During the 1960's, as a Government official with energy-related responsibilities, I watched with admiration, and I hope I offered encouragement and assistance, as rural people in the High Plains States organized Basin Electric Power Cooperative and eventually brought the economies of scale to electric power generation for rural people in eight States.

Rural electric cooperative leaders have worked hard to keep electric power costs low for the man at the end of the line. There is no way, however, that they can avoid the additional cost associated with low density and their area coverage responsibilities. Because their investment per consumer is substantial, high cost capital inflicts special burdens on rural electric cooperatives. The cooperatives cannot escape any of the wide variety of financial impacts that inflation and Government regulation impose upon energy suppliers.

I would like to suggest that this committee would be rendering a real service if it conducted an indepth examination of the factors causing the rapid increase in electric rates for all consumers. Such a study, limited perhaps to rural electric cooperatives, should provide essential information to guide decisionmakers as they consider new regulations and review old ones.

May I suggest some items that the committee might explore?

First, the Burlington Northern recently informed Cajun Electric Power Cooperative, one of our members, that the railroad tariff from Gillette, Wyo. to St. Louis, Mo., will be increased from $12.54 to $13.39 per ton of coal effective July 1. This is a 14-percent increase in the tariff. This is the effect of 1 year's inflation. What can be expected in the future as railroads are deregulated and encouraged to get financially well at the expense of captive shippers?

Second, Western Fuels' members are building power generating stations costing, with all required pollution equipment, approximately $1,000 per kilowatt of capacity. When I left the government 12 years ago, a kilowatt of coal-fired generation cost about $150. As interest rates are driven higher—from 8 and 9 percent to 14 and 15 percent as they were recently—what will be the eventual economic impact? Is this really an effective and proper way to fight inflation?

Third, Basin Electric Power Cooperative and the partners in the Laramie River Station were forced to create a $7.5 million trust fund for whooping cranes and to surrender valuable water rights because Congress refused to reconsider the Endangered Species Act. Are these costs properly assessed to rural power users?

Fourth, coal is one basic fuel resource that the United States has in abundance. Rural people are depending more and more on coal-fired generating stations to meet their electric power requirements. Rural people are the Nation's original environmentalists. They support mined land reclamation and water conservation. They wonder, however, if overegulation and unnecessary and unproductive requirements, including regulatory delays are not increasing the cost of coal unnecessarily.

Fifth, huge coal reserves underlie the public lands in the West. These coal reserves belong to all Americans and, properly utilized, they could be a powerful lever for keeping energy costs low. A 1971 moratorium on additional leasing remains in effect for all practical purposes. Has Government management or mismanagement of this resource contributed to keeping energy costs at artificially high levels?

Sixth—and I think this is interesting—Western Fuels has financed and built an underground mine in southern Illinois. The mine was dedicated on May 30 of this year. During essentially the same period, Basic Electric's coal supplier has been trying to get a Federal lease on some potentially bypassed land and get that land permitted for mining. The permits have not been issued and apparently will not be for some time. Should it be possible to build an underground mine in less time than it takes to get a mining plan approved? Obviously these delays cost money which must be passed on to consumers and at the same time valuable resources are lost.

The costs associated with these delays may well be the result of duplicative and overlapping regulations adopted by the executive branch, and particularly the Department of the Interior. However, it seems to us that at least part of the blame must rest with the Congress, because the Congress has enacted the legislation that undergirds the tedious and expensive regulatory processes. A detailed study of "factors affecting rising electric rates in rural America" might appropriately examine these questions.

These are a few of the questions that occur to me as I consider the ever-increasing cost of electric energy to rural consumers and to all Americans.

I commend you, Mr. Chairman and members of this subcommittee, for your interest in this matter. I urge you to continue your examination.

If there is any way that Western Fuels can assist in that effort, we will be at your service. Thank you very much.

Mr. JONES of Tennessee. Thank you very much, Mr. Holum. If you will hold on, we will get to questions after the next witness and we will ask questions of all of you together.

Our next witness is Mr. Henry L. Thomas, manager of the Coast Electric Power Association in Bay St. Louis, Miss.

Mr. Thomas is accompanied by Mr. Charles Robinson, deputy general manager of the National Rural Electric Cooperatives Association here in Washington, D.C.

Welcome, Mr. Thomas.

STATEMENT OF HENRY L. THOMAS, GENERAL MANAGER, COAST ELECTRIC POWER ASSOCIATION, BAY ST. LOUIS, MISS., ACCOMPANIED BY CHARLES ROBINSON, DEPUTY GENERAL MANAGER, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, WASHINGTON, D.C.

Mr. THOMAS. Thank you, Mr. Chairman. My name is Henry Thomas. I am general manager of Coast Electric Power Association, a rural electric cooperative located on the gulf coast of Mississippi.

I would like the written presentation to be entered into the record, with your permission, and I will briefly summarize it for the committee.

Mr. JONES of Tennessee. Without objection, it will become a part of the record.

[The prepared statement of Mr. Thomas may be found on p. 114.]

Mr. THOMAS. The factors which effect the rising costs to rural electric subscribers represent a combination of variables completely beyond the control of those who operate these systems. Inflation, as you are well aware, has its impact on each of us.

However, in rural electrics it has been compounded by other characteristics. In order to condense and confine this report, I will attempt to present the cost effect on rates as a result of the following: An urban to rural population movement creating growth and large capital outlays, density levels which tend to create much less revenue than those of urban systems with higher density levels, escalating equipment costs and the necessity of rural systems to purchase, operate, and maintain specialized equipment, load factor characteristics and their effect on rural costs, and the effects of the elements upon systems which are scattered over large areas.

For over 25 years, rural electric rates were normally less than those of the urban systems. However, in the 1960's and into the 1970's, and continuing today, with a population movement from urban to rural, rural systems began to see unprecedented growth. As a result of this move, large amounts of capital had to be spent in order to meet the growth.

In addition to the urban to rural movement, other types of facilities began to locate in rural areas. The weekend camp or second home became affordable to more and more people, with almost 100-percent financing for such purchases.

Many rural electric systems experienced the problem of building expensive facilities to serve loads with substandard factors.

It is my belief that the fast growing electric systems, either rural or urban, will be the ones to experience financial pains in the short term, but if it succeeds in overcoming these, it will enjoy a long-term benefit. Rural systems by their very nature must invest considerably more in facilities to serve a consumer than most urban systems. The typical rural system has five to nine consumers per mile of line, whereas a typical urban system would have 40 or more customers per mile of line.

As a result, a rural system will have more invested in equipment to serve a single consumer. Low density levels also create high expense areas in all consumer activity. It is expensive to locate, repair, and maintain facilities as a result of power outages, meter readings, and consumer contacts.

The typical rural system must construct, operate, and maintain more than 500 feet of service for every member served, while the typical urban system will usually build 90 feet of service or less for its customers.

Most rural electric systems must invest in specialized equipment, equipment designed for constructing, maintaining, and operating lines in marshes, swamps, mountains, or other areas which require specialty-type equipment.

Most rural systems experience lower load factors than those of urban systems. This is primarily the result of the residential and farm load nature of a rural system, while many urban systems may enjoy more heavily industrialized or commercial loads.

Many trends indicate, and hopefully this is true, that more and more industry and commercial loads are locating into the rural areas and a reversal of this trend could be in the offing.

Rural electric systems, because of their locations, are subject to many operational problems which may not occur in an urban system. Power failures on rural systems sometimes require traveling a long distance to locate and repair them. Weather creates very extensive cost factors for rural systems.

Most rural systems are scattered over a large geographical area, which creates a very high exposure to any and all weather related problems, such as the weather experienced here last night.

Systems such as the one I am associated with, which typical, experience all of the above, and additionally we have high exposure to severe lightning, prevailing winds, unstable soil conditions, seasonal hurricanes. These weather factors require unplanned replacement of older facilities built with much cheaper investment costs with high priced, present day materials and labor.

In our opinion, most rural electric rates, when compared realistically to urban rates, are extremely low when the same data for the comparison are applied, particularly when consideration is given for the nature of serving a rural area.

We also believe that most people in rural areas understand our business and that most misunderstandings occur from those consumers who have recently moved to newly developed rural areas or have advanced their standard of living to marginal levels. These misunderstandings usually are not based on fact but are generated through frustrations with a decrease in the standard of living due to an inflated economy.

The rural electric system, being located in and being operated by people who are part of the community, is highly visible to the consumer and presents an easy target for him upon which to vent his frustration.

While we rural electrics may not be able to compete ratewise with some systems, we would challenge any to excel or equal the quality of service and the human involvement provided by the rural electric system.

Evidence clearly indicates that most rural systems cannot be better served or with less cost than now exists and that in those rare instances of change in ownership, rates have been increased rather than decreased.

I submit the following statistics of a typical rural system. It is not different from any of hundreds of others. In this 11-year review, you will note that the cost of operation, which would be all costs connected with operating the system except power costs, have increased a bare 25 percent, while the Consumer Price Index has increased 107 percent in the same time.

Although the cost of electricity has increased tremendously, it is almost entirely due to prices in the uncontrollable expense areas.

I assure you, we too are concerned about the rising costs and rates and their effects upon our consumers. Additionally, we are concerned about all cost effects upon rural areas and the end results of these effects upon all Americans. Our entire purpose in existing is to assist and aid in the development of a better rural environment.

Historically, we feel this commitment has been carried forth and that the challenges of today will be resolved with the same determination as demonstrated in the past.

Mr. Chairman, I appreciate the opportunity to appear before this subcommittee. This concludes my summary.

Mr. Jones of Tennessee. Thank you very much, Mr. Thomas.

Mr. Robinson, do you have something that you want to add?

Mr. Robinson. Mr. Chairman, I too appreciate the opportunity to testify here today. I will be very brief. I just want to hit one point.

Reference was made to this earlier. I was particularly interested in the chairman's remarks concerning the fact that rural electric cooperative and the rural electrification movement is perhaps not as well accepted today as it once was, and that perhaps it needs to move in the direction of improving its public acceptance and public image. Certainly NRECA is doing everything it can to lead our organization in that direction.

I would point out, however, Mr. Chairman, that in the case of an electric cooperative, it is one member, one vote. The majority rules. There are more than a few situations in which a group of members of an electric cooperative which have felt that the cooperative was being run contrary to their wishes and their common interest have joined together and have attended the annual meeting, have voted out the incumbent board of directors, voted in a new board, and have brought about a change in the policies, direction, and operation of their cooperative.

Majority rules in the rural electrification program at the local level and this is the ultimate weapon in the hands of the members; that is, to vote out the old board and vote in a new board. As I say, that has been done on a number of occasions.

It is my understanding that this process may be working in this very cooperative about which Judge Kelly has spoken so eloquently today, the Withlocoochee Electric Cooperative.

I am also most regretful about the tragedy that has befallen the manager and am regretful that he cannot be with us today. Nonetheless, it is my information that this committee, the Select Committee on Electric Utilities and Service, of the cooperative has now elected to the board of Withlacoochee one of its own and, therefore, should be in a position to obtain all of the records it desires and make all of the input it feels necessary.

If the cooperative continues to go in a direction which the members feels is contrary to their interests, I assume that this group will be electing additional members of the board and will be obtaining redress of what may be its grievances by that method.

There is a method available to these folks. It is not an arbitrary decision, made by a manager, that is unappealable. They have a forum and they have a device by which the majority rule will prevail over the years in these systems.

Mr. **Jones** of Tennessee. Thank you, Mr. Robinson.

That concludes the witness list. If Mr. Fife, Mr. Cottrill, Mr. Friedlander, Mr. Holum, Mr. Thomas, and Mr. Robinson will come back, we will give the members of the subcommittee an opportunity to ask some questions.

Thank you, gentlemen. We are on the 5-minute rule as far as the members are concerned.

Mr. Fife, I have a question that I would like to take my 5 minutes to ask you on the first go-around. If we have more time, I will ask more. What recommendation would you make to your rural electric co-op board that would help alleviate the present situation that is a problem to you and to the other members?

Mr. **Fife**. Mr. Robinson says that we had a chance to elect one of our own to the board. He does not realize that it took 1,600 signatures, the names and addresses of 1,600 men and women. They had to be members. We had to go about and make sure that their names and addresses were there, their electric numbers. We practically had to go individually to their homes to get this so that we could even place the name of our man, who became the elected representative of the professional sector, on the nomination.

Then we went to a meeting where there were approximately 3,000 to 4,000 people on a hot day in April, into a small building. Believe me, if you have ever seen a meeting that was conducted badly—I would not even say that the chairman who was conducting the meeting knew how to conduct a meeting.

We asked that proxy votes be allowed, that is, that the members be allowed to cast their votes by proxy. We were told that cooperatives do not allow proxy votes. One of our members who was a retired lawyer furnished a law stating that the State of Florida allows proxy voting by members. We took that up to the board.

They then reversed the decision. We had a vote by ayes and nays as to whether or not the proxy vote would be allowed. The chairman said that the nays had it. As a point of order, I demanded a count. After a few minutes of wrangling back and forth, the chairman reversed his decision without a count and said the ayes had it.

You say it is easy to change, but it is quite hard to change. It will be 5 years before we can change it because next year there will only be two members coming up and the following year only two members coming up. It will be at least 3 years before you could even have a majority vote from our committee.

We are not saying that we want to run the co-op. I think you have a blueprint up there that shows you that since June 1978 to June 1979 the Withlacoochee membership for the year paid $100.46 more than the Florida Power membership, and here they are side by side, next door to each other, and they are paying $100 a year more than the Florida Power customer. Why?

From June 1979 to May 1980 we have paid $106.41 more for the year. What has happened is that the Federal Energy Regulatory Commission has granted a raise to the Florida Power Corp. to charge the Withlacoochee customers 16 percent more starting in May 1980. That means that instead of 22 percent that the Withlacoochee customer is now paying over and above Florida Power, they will be charged 37 percent more than the Florida Power customer.

We are both U.S. citizens. We are on opposite sides of the street from each other and we are going to pay 37 percent more than Florida Power. The State of Florida has said that they will not have that rate increase charged to the Florida Power retail customer, yet the Federal agency says that you can charge it to the Withlacoochee customer.

I declare. Something is unfair.

Mr. JONES of Tennessee. Let me ask you this, Mr. Fife. Was that meeting you held in April the annual meeting of the cooperative?

Mr. FIFE. Yes, sir.

Mr. JONES of Tennessee. How many people attended?

Mr. FIFE. About 3,000 to 4,000 people.

Mr. JONES of Tennessee. Do you have any idea how much of a percentage of the co-op that constituted?

Mr. FIFE. There are 68,000 right at the present time. It would be less than 20 percent.

Mr. **Jones** of Tennessee. Did I understand you to say that proxy voting was instituted or was ruled——

Mr. **Fife**. No. We have asked the board of directors to institute before the next election a proxy vote. They will decide that.

Mr. **Jones** of Tennessee. Is that in the bylaws, that you cannot use proxies?

Mr. **Fife**. They claimed that it was illegal, but our lawyer showed them that it was legal and they accepted our recommendation that the board of directors decide whether or not there is going to be proxy voting. Some of these people live 40, 50, or 100 miles away from the place where the meeting is held.

Mr. **Jones** of Tennessee. Thank you, Mr. Fife. I have other questions, but I will yield now for 5 minutes to Mr. Madigan.

Mr. **Madigan**. Mr. Fife, what town in Florida is it where people who live across the street from one another are served by different utility companies?

Mr. **Friedlander**. It is through Pasco County, particularly west Pasco County. The purpose of these things is better service.

Golden Acres is one of the subdivisions. At Golden Acres we were directed by the Public Service Commission to transfer our power from Florida Power to Withlacoochee, even though the rates were somewhat higher.

Throughout Pasco County you will have enclaves. In one block you will have 400 or 500 homes that are Florida Power and in the next block you will have another subdivision that is Withlacoochee.

There is one such brand new subdivision that is just being undertaken, a major development, that has to cross the lines. Florida Power has been directed to serve that neighborhood and they have to cross their lines with Withlacoochee to get to their lines. This is scattered throughout western Pasco County.

Mr. **Madigan**. Are there places that were served by the co-op that are now being served by the privately owned utility by virtue of an order of the Florida Public Service Commission?

Mr. **Friedlander**. That is correct, sir.

Mr. **Madigan**. What does the Florida Public Service Commission give you as the justification for that order?

Mr. **Friedlander**. Are you talking about Florida Power or the Public Service Commission?

Mr. **Madigan**. The Public Service Commission entered the order.

Mr. **Friedlander**. The executive order, or whatever it was, that was issued by the Public Service Commission stated simply that they had a public hearing on such and such a date. That was, incidentally, conducted during the Christmas holidays on December 20.

The advance public hearing that was published in the newspapers was inconspicuous and it stated that a public hearings between Withlacoochee and Florida Power was to be rescheduled on December 20, if I remember correctly. It took up about a half an inch in a paper that nobody got, which was the Clearwater Sun, some 20 miles down the road, and in the New Port Richey press, which does not deliver newspapers or have subscribers. Nobody was aware that the public hearing was even conducted.

The executive order said that since only two people appeared at the public hearing, it was in the best interest of the public to transfer some 500 customers between Withlacoochee and Florida Power.

Mr. MADIGAN. Did you say from Withlacoochee to Florida?

Mr. FRIEDLANDER. From Florida Power to Withlacoochee.

Mr. MADIGAN. I do not want you to tell me about newspapers.

Mr. FRIEDLANDER. Yes, sir.

Mr. MADIGAN. I do not want you to tell me about how many people were there or when it was. What I wanted to know is, who requested that? Who requested that that be done?

Mr. FRIEDLANDER. We do not know who requested it. I am one of the members who was on Florida Power. It was against my will and consent.

First of all, I asked if the power would be cheaper or higher. They said it was going to be higher. I said, "What advantage do I have to change?" They have two electric utility companies on the same street. Since they changed, Florida Power tore all of their lines down and sold their interests to Withlacoochee.

Mr. MADIGAN. Do either of you two other gentlemen know how the hearing came about or who initiated the process?

Mr. FIFE. I do not know, but I assume it was Withlacoochee, under their territorial assignment, that asked for it.

Mr. MADIGAN. Asked for a realinement of the territory?

Mr. FIFE. That is right. That would be the only way.

Mr. MADIGAN. Presumably, Florida Power did not object if ther was no one at the meeting.

Mr. FIFE. Florida Power might have objected, but the judge coul decide that.

Mr. MADIGAN. At that point or in that particular town that we ar talking about, is the power provided by Withlacoochee co-op purchased from Florida Power?

Mr. FIFE. It is purchased from an entity called the Seminole Corp The Seminole Corp., a cooperative, purchases it from the Florid Power Corp.

Mr. MADIGAN. So it is the same juice.

Mr. FIFE. Yes, sir.

Mr. MADIGAN. Do you know whether or not it is generated from th same plant?

Mr. FIFE. There is no other plant to generate electricity excep Florida Power.

Mr. MADIGAN. I mean, do you know whether or not the electricit in one subdivision might be coming from a new nuclear plant an another subdivision coming from an old coal-fired plant?

Mr. FIFE. No, sir.

Mr. MADIGAN. No, you do not know?

Mr. FIFE. We would have no way of knowing.

Mr. MADIGAN. All right. That could be the answer as to why th rates would be different, if the source of generation were differen

Mr. FIFE. No, Sir. There would not be any different source of genera tion.

Mr. MADIGAN. That is what I just asked you, if you knew whethe or not there was. You said you did not know. I am not trying to tric you.

Mr. Cottrill. Sir, they have two generating plants that are almost side by side in Crystal River. One is coal fired and the other is nuclear. We do not know which comes out of where. I do not presume that anybody but a representative of Florida Power would know.

Mr. Jones of Tennessee. Thank you, Mr. Madigan.

The time is now to Judge Kelly.

Mr. Kelly. Thank you, Mr. Chairman.

Mr. Robinson, you suggested that there is a democratic process by which the members of a cooperative are able to resolve any differences they have with management, but I think I would like to have some comment from you about this. Is it not a more practical and efficient solution for management to just simply operate in such a way that it is effective, and for management to be directly responsive to the membership rather than making the membership throw them out in order to get the thing straight?

That does seem like a waste. As these gentlemen have suggested, it is a process that takes several years. You were not suggesting that the co-op management has no responsibility to respond to its membership, were you?

Mr. Robinson. Mr. Kelly, certainly. That was the furthest thing from my mind. In my judgment, the cooperative management has a greater responsibility and a greater duty than the management of a profitmaking or investor-owned enterprise to be responsive to its constituency, if you will, to its consumer members. You are absolutely correct.

I think what I am saying, Congressman Kelly, is that you have to understand that there may be differences of opinion among the membership on these major policy issues. If you are sitting there as a manager and you feel that you have to charge so many dollars per thousand kilowatt hours to keep your enterprise solvent, to repay your debt to the Government, to pay your property taxes, and to purchase your wholesale power, and you have a group of members—this is purely hypothetical——

Mr. Kelly. Mr. Robinson, I understand that, but I just wanted to make clear that you were not suggesting that the way to do it is to just throw the scoundrels out rather than go and talk to them and expect that they would respond to——

Mr. Robinson. I think they should be responsive wherever they can and wherever it is consistent with the objectives of the cooperative, which is service at the lowest cost consistent with a solvent operation.

Mr. Kelly. Much of the testimony here today has dealt with situations that do not apply directly to Withlacoochee; for instance, the reference to 4, 5, 6, 8, 9 customers per mile of line. That does not apply to Withlacoochee because their density is between 18 and 19.

Mr. Robinson. I believe it is 15.6.

Mr. Kelly. That may be what you believe, but that is not what I believe.

Mr. Fife. It is 19.

Mr. Robinson. I understand you. I do not think there is any significant difference between us on that point.

Mr. Kelly. I would like the three gentlemen to answer this. The chairman asked you what your recommendation is. Without trying to solve the basic problem about pricing and management, what would be your recommendation about trying to solve the present situation of communication?

As I understand it, what you want is a public hearing so that the membership can come and you will have an opportunity to prepare for the hearing and to attempt to get some, what you would consider, legitimate public explanations of why Withlacoochee is having a problem maintaining a competitive standard with Florida Power.

Mr. Fife. Mr. Kelly, we have been working since last May. We have been asking the same question.

Mr. Kelly. Is that a year ago last May?

Mr. Fife. Yes. We have been working diligently. All the members of the committee have been working diligently. We asked the first question and the question is: Why are our rates higher than Florida Power rates when we live on the same street? So far, no one, but no one, has given us an answer that we could take back to those 16,000 petitioners.

Mr. Kelly. I am trying to establish a public hearing in the service area of Withlacoochee to get those answers for you. Does the membership support such an effort to try and get a public hearing?

Mr. Fife. Absolutely.

Mr. Friedlander. You are asking what recommendations we have for what we would like to have done. We seem to have a twofold problem. One of them is a domino effect. Florida Power is the pacing utility company in Florida that sells the power to the other co-ops. If we could get the Congress to pass some law or change some regulations that would provide these co-ops with a source of cheaper electricity—I would also recommend some development of synthetic fuels.

On television here the other night they had a program on which they brought out that there is a new hydrogen fusion program that the Congress and the President are sitting on that could have a high potential for electric firms as a source of power. Maybe this would be beneficial. These are just a couple of recommendations in that area.

Mr. Madigan. Mr. Chairman?

Mr. Jones of Tennessee. I yield.

Mr. Madigan. I ask unanimous consent that Mr. Kelly be given additional time.

Mr. Jones of Tennessee. Without objection, so ordered.

Mr. Kelly. Thank you, Mr. Chairman.

I would like to ask you gentlemen if there has been any sentiment among the members of your committee to create a problem for the management of Withlacoochee, or have you simply been trying to get some answers as to the reasons for the differential? For instance, did you initially start out to try and replace any of the board members?

Would you comment on this, Mr. Cottrill?

Mr. Cottrill. The way this got started was that I got my bill somewhat over 1 year ago and the fuel cost was 30-some percent of the total cost of my electric bill. I was concerned. I did not know anything about it at the time.

I have had a pretty good lesson since. I went to my neighbor and I asked, "What goes here?" He said, "I do not know. I do not think they are allowed to charge you for fuel cost because they do not manufacture any fuel."

We went over to George Fife's here. He said the same thing. That was our opinion at that time, which we found out was wrong.

Anyhow, that is how it got started. We tried to contact the management and officers of Withlacoochee. As soon as they found out what we wanted to know they would not talk to us. They said they would call us back and they never called us back. I made at least 15 or 20 calls to those offices. They would not even call us back and they would not answer the phone for us.

We got no cooperation whatsoever. Thereafter, I saw an ad in the local paper by Senator Chiles. It said: "If you have a complaint, come down." Eight of us got together and went down to Senator Chiles. We did not get a very good reception there.

My wife then said, "Let's go up to Kelly's office." We went up to Kelly's office and very graciously interrupted a meeting there and they accepted us very nicely. That is when we were told that if we got up a petition, you would help us.

That is how it all got started. We have never tried to do anything damaging to Withlacoochee. All we wanted was some information. We still do not have it. That is it.

Mr. KELLY. I thank the ranking minority member and the chairman and yield back the balance of my time.

Mr. JONES of Tennessee. I understand that we have a gentleman in the audience with the Florida Power Corp. Mr. Sirmons, are you here?

Mr. Sirmons, would you want to come forward and participate in any of this discussion we are having? You were here this morning, were you not?

Mr. SIRMONS. Yes.

Mr. JONES of Tennessee. Why don't you take a seat. I think Mr. Madigan has a question or two that he would like to direct to you, if you do not object.

Mr. MADIGAN. Mr. Sirmons, we thought that perhaps you could help us understand why there would be people living across the street from one another, served by different distribution companies, both getting their electricity from the same source of generation, and paying entirely different rates, since your company is the source of generation in either case and the source of distribution in one case.

We thought perhaps you could explain that to us.

Mr. SIRMONS. Our concern over the years has been territorial integrity for the service area of the Florida Power Corp. You have to appreciate the fact that we are an investor-owned company, serving in 32 counties in Florida that is intermingled with nine electric co-ops. We also have 12 or 13 wholesale municipalities that have their own distribution that go outside of their cities and come into our potential territory.

We have arrived at the conclusion within our compnay that the best way to operate long range is to have territorial integrity. In order to accomplish that, we determined that we would sit down with the various co-ops and determine what territory would be served by Florida Power and what territory would be served by the various co-ops and municipalities.

We have been working on this for years and years. This is in areas that the gentlemen have described. The Golder Acres area in west Pasco County was one of the bad areas——

Mr. Madigan. Excuse me. How do you use the term "bad" in this context?

Mr. Sirmons. Bad, from an intermingled service equipment standpoint. We have been serving New Port Richey for many, many years. The city of New Port Richey itself, from municipal boundary standpoints, has not grown very much, but around it the area has grown considerably. It has grown out into the country.

The co-op was out in the country over the years. That is why they were created, to serve customers out in the country. As the city grew out into the country, you can appreciate the fact that we are taking our lines out with that growth and they are sitting out there with their lines. At a given point, we begin to buck each other. Who serves at this point? It is that question that we have been trying to resolve with service territory integrity in mind.

In some areas it has been much worse than in others. That is why I say it is a bad situation, particularly around New Port Richey.

Mr. Madigan. When you come to that point where you are bucking each other and your company is the source of the power for both the buckee and the buckor—[laughter]—why would there be a difference in the cost to the subscriber at the point of the buck?

Mr. Sirmons. Just from my experience in the utility industry—and there are all kinds of co-ops, and investor-owned companies of different sizes and shapes and municipalities that have their own systems—I do not know of any two that have the same electric rate.

I think you have to go back to the beginning of how the rates started and of how the revenue demand in relation to the rate structure produced that demand were created.

Mr. Madigan. You mean the cost of the electricity may be the same for both customers, as far as the electricity component itself is concerned, but there would be other things built into the per-kilowatt-hour charge that do not have anything to do with the cost of electricity. Is that what you are saying?

Mr. Sirmons. I say, could. I am not saying that for sure.

Mr. Robinson Might I comment on that, Mr. Chairman, at an appropriate time?

Mr. Jones of Tennessee. Without objection, yes, sir, but let us finish with Mr. Sirmons right now.

Mr. Madigan. What would the components of that per-kilowatt charge be other than the raw electricity?

Mr. Sirmons. The investment, of course—as someone explained here, the number of customers per pole mile of distribution line is one factor.

Mr. Madigan. You mean the one company might have industrial consumers in its base and the other company would not.

Mr. Sirmons. No. I mean, when you serve within a given city area your cost per individual customer would be less because of the number of customers that you can serve off of one line than it would be if you had to take that same line out into the country and perhaps serve just a few customers off it. Your return on that investment would be far better in the city than in the country. That is what I think these gentlemen are saying as far as differential rates are concerned.

Mr. Fife. There is no investment.

Mr. SIRMONS. I am going back to the original reason. The co-op originally created their rate. I am sure, as we did ours. It is from that base that was created originally that we keep working from rate increases and so forth.

Mr. COTTRILL. May I ask a question?

Mr. JONES of Tennessee. Yes.

Mr. MADIGAN. We do not want you fellows to start fighting now.

Mr. COTTRILL. I want to ask how many customers per mile you have in Florida Power?

Mr. SIRMONS. I think it is around 30 or 40.

Mr. KELLY. Mr. Chairman, the staff advises that it is 38.

Mr. SIRMONS. Let me go back to your original question, if I can, as to how we arrive at that territory line. Somewhere you have to have a dividing line. One company will serve on one side of that line and the co-op will serve on the other. The co-op and the company, in this case Withlacoochee and Florida Power, sit down and over months and months of giving and taking arrive at lines which we both agree, both the company and the co-op. The company would give up customers in one area, the co-op would give up customers in another area but we would straighten these lines out where they are intermingled and would create the service territory.

It is understood now by the co-op and the company that we will serve up to this point and the co-op will serve up to this point from the other direction. For that to be effective in Florida you have to go to the Florida Public Service Commission and they have a hearing on that. The procedure is to invite the people affected by the swap, by the territorial agreement, to that meeting so that they can get the input of those people and explain to them what is happening. I think it is that meeting that they say only two people attended, or something like that. I was not there so I do not know.

Mr. MADIGAN. I see that my time has expired, Mr. Chairman.

Mr. JONES of Tennessee. Thank you very much, Mr. Madigan.

I believe that Mr. Robinson wanted to make a statement.

Mr. ROBINSON. I will only take 1 minute, Mr. Chairman.

Mr. JONES of Tennessee. Without objection, you may proceed.

Mr. ROBINSON. I deeply appreciate it. My understanding is that in addition to the 2-to-1 ratio, in other words the Florida Power Corp., having 38 consumers per mile and Withlacoochee having roughly half that number, that the characteristics of the kilowatt-hour sales of the two organizations are vastly different.

It is my understanding, Mr. Chairman, that in terms of kilowatt-hours Withlacoochee sells 76.9 percent of its kilowatt-hours to purely residential loads and that the residential load of Florida Power Corp., is about 39.4 percent, which means that Withlacoochee has a much higher investment per kilowatt-hour of sales with respect to the character of the sales and with respect to density than has the Florida Power Corp.

I further understand, Mr. Chairman, that Withlacoochee experiences a per consumer sales volume 20 percent less than that of Florida Power Corp.

These are some of the reasons I have for the difference in the net cost per kilowatt-hour to the person at the end of the line.

Mr. Jones of Tennessee. Thank you, Mr. Robinson.

Mr. Sirmons, I would like to ask you this. Is that essentially correct as far as your figures are concerned, or do you know?

Mr. Sirmons. I do not know. I am not in the ratemaking line.

Mr. Jones of Tennessee. Mr. McKee, would you know whether that would be approximately right or not as far as the distribution of users is concerned?

Mr. McKee. I do not know their average per customer. Ours is, in round numbers, 10,500 per customer, per year residential. I do not know how many kilowatt-hours their customers use, but I have no objection to their figures as a percentage of sales.

Mr. Jones of Tennessee. In other words, Mr. Robinson stated that Withlacoochee is serving a good many more residents and houses, things of that sort, than Florida Power. Is that correct?

Mr. McKee. As far as I know that is correct.

Mr. Jones of Tennessee. Is that what you said, Mr. Robinson?

Mr. Robinson. That is correct. There is a whale of a lot more plant investment per kilowatt-hour sold on the part of Withlacoochee than there is in the case of Florida Power Corp.

Mr. Friedlander. Mr. Chairman, could I bring out another point here that further compounds this problem? As I stated awhile ago, when you gentlemen investigate this the problem is further compounded because Florida Power, as I said, is a pacing electric company that sells to Seminole and to Withlacoochee. Florida Power also sells to other co-ops.

In the State of Florida you have one of the most favorable regulatory atmospheres in the Nation. In this area you have one of the highest per capita incomes in the Nation, namely in northern Virginia and Maryland. Vepco—Virginia Electric Power Co.—rates are cheaper in most instances than Florida Power.

Florida Power sells their power to Seminole, so you can see that Withlacoochee rates are going to be placed among the highest in the Nation. We have written for input from Business Week, that gathers statistics on electric companies, for a breakdown of rate comparisons for the entire United States. I expect to have that material when I get back and if you would like to have it I will send it on.

Mr. Jones of Tennessee. We would be delighted to have it.

Mr. Friedlander. I will send it to you.

That is all I have to say.

Mr. Jones of Tennessee. Thank you, Mr. Friedlander.

Mr. Fife, I have one other question I would like to ask you. We are bringing this to a close.

Do you advocate Federal regulation of rural electric co-ops?

Mr. Fife. I think they have regulated them.

Mr. Jones of Tennessee. Yes; but do you advocate that?

Mr. Fife. I am not against Federal regulation of co-ops if it is what is needed. I might say that our co-op is no longer needed in this sense of the word. The Withlacoochee Co-op is not needed at all because we are no longer a rural area. We are definitely an urban area when we have 19 customers per mile.

We go to a member-management meeting and we are told that the average Withlacoochee resident consumer consumes 20 percent less energy than his Florida Power counterpart but we were also told that if we consumed more energy we could get it more reasonably. Does that make sense?

In other words, everyone is advocating the use of less energy but the management tells us that if we consume 20 percent more we will get it for less.

Mr. JONES of Tennessee. Did I understand you to say that you no longer see any need for the Withlacoochee Co-op?

Mr. FIFE. As such, yes, sir.

Mr. JONES of Tennessee. In other words, are you saying that you would like to see it become a part of the Florida Power Corp.?

Mr. FIFE. Absolutely, sir, at the rate of $8 per person per home; yes.

Mr. JONES of Tennessee. Do you think they would buy it if they got a chance?

Mr. FIFE. I wish they would.

Mr. JONES of Tennessee. Do you think they would?

Mr. FIFE. I would say for $106.41, even though they are more expensive than most utilities in the country, I would still rather have Florida Power than pay 37 percent more. Starting July 1 I am going to start to pay 37 percent more than the Florida Power customer.

That is it. That means that if I have been paying 22 percent and it comes to $70 per kilowatt-hour of electricity, with the additional 15 percent I am going to pay $85. The Florida Power customer is going to pay approximately $55.

For 1,000 kilowatts-hours of electricity it is going to be approximately $35 more. It does not make sense, sir.

Mr. JONES of Tennessee. Thank you, Mr. Fife.

Judge Kelly, I think you wanted to say something.

Mr. KELLY. Mr. Chairman, I just wanted to inquire of Mr. Sirmons one thing. During the time that you were engaged in this power struggle, was it not the common practice for Florida Power to go into a newly laid out subdivision and make a deal with the developer that if he would give Florida Power jurisdiction over his subdivision, you would give him a bunch of freebees, like street lighting, underground wiring, and all that kind of thing?

Mr. SIRMONS. No, sir. In no way could we do that.

Mr. KELLY. You did not do that.

Mr. SIRMONS. We did not.

Mr. KELLY. Could you have done it?

Mr. SIRMONS. No; we could not do that.

Mr. KELLY. Why?

Mr. SIRMONS. Every customer has to be treated the same. Every residential customer pays the same basic electric rate.

Mr. KELLY. Let me ask you this. Are there Public Service Commission regulations that tell you that you cannot do that?

Mr. SIRMONS. Our own operating procedures and probably the PSC—I would say the regulations cover that, yes.

Mr. KELLY. The PSC regulations say that you cannot give free services to one customer as compared with another.

Mr. SIRMONS. If we gave it to one we would have to give it to the others.

Mr. KELLY. Then, as far as you know, do the co-ops have a regulation that says they cannot give those services—that is, underground wiring, free street lighting, service at lower cost, and that kind of thing? If they do then that is a factor in determining rates also.

Mr. SIRMONS. I am not sure what you are asking. I do not know of any restriction as far as——

Mr. KELLY. I am asking you this. If an electric utility gives underground wiring and free services to a subdivision then all of the customers in the entire system wind up having to pay for those free services. Is that not so?

Mr. SIRMONS. I would say that basically that would be right unless they have different rates that would apply to that one subdivision.

Mr. KELLY. Therefore, as you are here today, you cannot say with any kind of specificity why Withlacoochee's rates are higher. You do not know all of the components that would go into that.

Mr. SIRMONS. No, sir. I cannot.

Mr. KELLY. Let me just ask this question. Mr. Fife, as I understand it, what you are saying is that rather than speculate about all of the things that could go into a question of why the rates are different, you want a public hearing so that you can get some specific answers to exactly why. Is that correct?

Mr. FIFE. Mr. Kelly, at this time we have come up here and have been here all day and the question has still not been answered as to why. I have listened to people. I have listened to what everybody has asked. I cannot go back to 16,000 petitioners and tell them that I do not know.

Mr. JONES of Tennessee. Judge Kelly, thank you.

Mr. Robinson, I have one final question I want to ask you. Are you familiar with the bylaws of the Withlacoochee Electric Co-op?

Mr. ROBINSON. No, sir, I am not. Bylaws, as you know, Mr. Chairman, vary very substantially around the country between States.

Mr. JONES of Tennessee. That was my point. I wonder if they differ any from the majority of the bylaws of other electric co-ops or telephone co-ops or anyone else, as far as election of the members of the board of directors is concerned. Is it different in Florida from anywhere else?

I have not experienced it as being this difficult to replace a member of the board in my area. We can get rid of them if we want to down there. I have never heard of somebody having to get 1,600 signatures——

Mr. FIFE. Sir, we have to get 1 percent of the customers. Not only do we have to get 1,600, they have to be legible signatures. The reason we got 1,600 is so that they would not throw out the ones that were not legible.

Mr. JONES of Tennessee. Without objection, gentlemen, I think I will write to the management of the Withlacoochee Electric Co-op, if you do not mind, for a copy of their bylaws. I would like to see if there is something in Florida that is a little different from what it is in some other State.

Mr. KELLY. Mr. Chairman, I would like to ask unanimous consent that we have a copy of those bylaws as part of the record.

Mr. JONES of Tennessee. Without objection, that will become part of the record.

[The above referred to material may be found on p. 125.]

Mr. KELLY. Thank you, Mr. Chairman.

Mr. Fife. Mr. Chairman, I have just one more thing. When we elected this man to the trusteeship, it was the first time that this had been done in 39 years. The trustees—if you want to see a well balanced organization—appoint the nominating committee. They nominate the new members to be elected. The man that we defeated, Mr. Hines, was a grandson of the original founder of the Withlacoochee Cooperative.

Mr. Cottrill. By the way they have the elections, it is perpetuated all the way through. There is no chance, other than the way we went, to get any information or to get anyone else in on the company. It is a very closely knit operation.

This is the first time this has happened. It will take us perhaps 5 or 6 years to get enough people in there to find out what is actually going on and open it up.

I will send you a copy of the bylaws if you want them.

Mr. Jones of Tennessee. I would like to see them. Judge Kelly asked unanimous consent that they be made a part of the record. I think they should be. We would like to have a copy.

Mr. Cottrill. I will get them for you.

Mr. Kelly. Mr. Chairman, if you are about to close the meeting, I would like about 10 seconds to make a statement.

Mr. Jones of Tennessee. Without objection.

Mr. Kelly. Mr. Chairman, I think the law has been clearly established that a petition from the citizens of the country is entitled to more dignity than any other device or overture that is recognized by the law. I think the fact that this Congress, in light of what is going on on the floor of the House and the busy schedule that is before the Congress at this particular time, took the time to hear this complaint is indicative of democracy at its best.

Mr. Chairman, we do not share membership in the same political party, but I certainly want to take this opportunity to recognize your leadership. It is certainly in the highest tradition of the Congress.

Mr. Jones of Tennessee. As I explained earlier, we would have made a trip to Florida if we had the time. We just simply did not have it.

You are correct. We have so many votes over there and we are drawing to the end as far as the work of this session is concerned.

I want to thank all you again and the members of the subcommittee. I apologize for not having a full corp, but it is difficult to get everybody here. Some of them are sitting in on other important meetings in which they have more responsibility and more interest than they do here. Nevertheless, you have had the nucleus of the subcommittee. They have come and gone all day long.

The meeting will stand adjourned for the time being.

[Whereupon, at 4 p.m., the subcommittee was adjourned subject to the call of the Chair.]

[Responses to questions submitted by the subcommittee appear on p. 145.]

[Prepared statements submitted by witnesses and additional material submitted to the subcommittee follow:]

TESTIMONY OF ROBERT W. FERAGEN, ADMINISTRATOR
RURAL ELECTRIFICATION ADMINISTRATION
UNITED STATES DEPARTMENT OF AGRICULTURE
before the
U.S. HOUSE OF REPRESENTATIVES
AGRICULTURE SUBCOMMITTEE ON CONSERVATION AND CREDIT
JUNE 4, 1980

Chairman Jones, members of the subcommittee: I appreciate the opportunity you have provided the Rural Electrification Administration to appear here today to discuss the increased cost of electricity to the people served by rural electric borrowers.

I concur with the concern of the committee about these increased costs and the higher retail rates for electricity that have occurred because of them. Unfortunately, for the consumer and for all of us who are in one way or another involved in policy or decisions concerning the availability and the cost of electricity, the situation is going to become much worse before it gets better--if indeed, the spiraling COST trend is ever reversed or slowed down.

What differentiates the cost of electric service from other goods and commodities is that the cost of electricity was declining rather rapidly from the late 1940's until the early 1970's. The accompanying chart (Exhibit I) illustrates the average residential price per kilowatt-hour from 1948 to 1979 in both constant and nominal dollars. While the cost in nominal dollars has increased dramatically since 1973, the cost in constant dollars has stayed relatively constant. The inflationary trends in our society, and especially in the energy area, have now overwhelmed the economies of scale that were present in the electric utility industry for many years.

It is, therefore, especially timely for the committee to examine this trend and to understand its causes.

The cost of electricity, as the members of this committee know, is made up of three basic elements:

THE COST OF POWER PRODUCTION--A generating plant, fuel to run the generating plant, the cost of operating the plant, such as wages and salaries, the cost of owning that facility--interest and depreciation.

THE COST OF TRANSMISSION--High voltage transmission lines to deliver large amounts of power from the generating plant to the load centers of the consumers who use that power.

THE COST OF DISTRIBUTION--Lower voltage lines to deliver power from substations on the transmission system to the homes, farms and businesses served by the utility.

In the beginning of the rural electric program, the larger number of loans and the greater amount of dollars were loaned to cooperatives and a few other organizations for the purpose of distributing electric power--rather than producing or transmitting that power. Even though as early as 1936 REA loans were made for generation of power, the cooperatives in their early years purchased most of their power from other utilities or from federal power developments.

For purposes of this discussion, the cost of providing electricity for all of the rural electric cooperatives has been reduced to two elements:

WHOLESALE POWER COST--The amount that the distribution cooperative pays for power delivered to its area, whether that power is generated by a power supply cooperative of which it is a member, from a public or investor-owned utility or one of the federal power marketing agencies.

ALL OTHER COSTS--The amount of money that is collected by the distribution cooperative to pay for the cost of its lines and facilities, its operating expenses, margins or money used or collected from the consumer-cooperative member for any other purpose.

The addition of these two costs provides the cost that the consumer pays by its retail rates.

The table which follows here summarizes these two costs for 7 different years -- 1962--when costs were sharply lower--and the same costs for 1974 through 1979.

The table shows cost for wholesale power for all electric borrowers--that is, the sum of all wholesale power cost regardless of its source divided into the total amount paid for that power by rural electric distribution borrowers. That cost is expressed in mills per kilowatt hour.

The table shows the cost of distribution and all other costs and the total cost to the consumer, the sum of these two elements, in the same manner--expressed in mills per kilowatt hour.

	1962	1974	1975	1976	1977	1978	1979
Power Supply Costs	8.1	12.3	15.9	18.2	20.6	23.7	26.3
All Other Costs	14.4	10.0	10.8	11.1	11.6	12.3	12.8
TOTAL	22.5	22.3	26.7	29.3	32.2	36.0	39.1

Those statistics show:

--The cost of wholesale power supply more than doubled in price from 1974 through 1979.

--The cost of distribution power, despite inflation and other higher expenses, has decreased from 14.4 mills per kilowatt hour in 1962 to 12.8 mills in 1979.

The higher cost to the consumer at the present time is therefore due almost entirely to the cost of wholesale power.

Wholesale Power Costs

The trend that is indicated by that table will continue in the 1980's, with even more dramatic increases in the cost of wholesale power and with LESS dramatic increases also in the cost of distributing power.

What has caused the cost of wholesale power to double in the past five or six years? The costs associated with two rural electric financed generating plants, one that began operation in 1966 and one that will begin operation this year, demonstrate the changes that have occurred in the industry and the costs to REA borrowers. These plants and the costs associated with them are considered typical of REA financed systems by the REA engineering staff.

COMPARISON OF POWER PLANT COST FACTORS

	Leland Olds Station #1	Laramie River Station #1
Capacity	216,000 KW	1,500,000 KW
Commercial Date	January 1966	June 1980 (projected)
Installed Capacity Costs	$135 per KW	$680 per KW
Pollution Controls	Minimal	$165 per KW
Interest During Constru.	Minimal	$116 per KW
Lead Time	5 years	8 years

Operating Costs	1966 Actual	1982 Projected
Power Costs* (At the Bus)	3.289 Mills,KWH	28.490 Mills/KWH
Fuel	1.500 Mills/KWH	8.248 Mills,KWH
Fixed Costs	1.700 Mills/KWH	17.250 Mills/KWH
*Includes Pollution Control Operating Costs	Less than 0.01 Mills/KWH	4.86 Mills,KWH

Power Supply Planning Process

REA has approved loans or loan guarantees totalling about $16.7 billion for power generation facilities which are under construction and will be developed in the 1980's. These loans will provide approximately 21,000,000 kilowatts of capacity for 582 distribution systems.

Wholesale power supply costs from these facilities will vary from 3¢ to 8¢ per kilowatthour.

The trend that began in the 1970's to higher and higher electricity costs because of higher and higher wholesale costs will be even more dramatic in the 1980's.

How that trend will affect retail rates will vary greatly from region to region because of a large number of factors that combine to determine these costs. Those factors and others are considered in the power supply loan planning and feasibility studies.

The final determination of an optimum power supply plan is a highly complex process. What may be an excellent program for one state or region may not be possible or economical in another state or region. REA reviews the power supply plan to ensure that the proposed plant best fits the needs of all borrowers in the region.

To illustrate the significant steps required in the development of this planning process, the following generalized list is presented. It should be recognized, however, that a mere listing of these significant steps does not convey the complexity, time required, or costs associated with the successful development planning associated with a power supply plan.

Costs up to $3,000,000 are common and the entire process can easily take 3 years to complete. The cooperative bears all the risks of this preloan investment requirement and receives no guarantee that the plan will be approved.

1. Development of comprehensive long-range (15-year) Power Requirement Study to verify need for additional generating and transmission facilities.

2. Determination of the best Engineering Plan to utilize the resources of the particular study area most effectively.

3. Develop a site location study to establish preferential sites for a generating station which is environmentally and economically acceptable and minimizes transmission and other environmental impacts.

4. Development of the necessary Environmental Analysis, Environmental Impact Study and all other backup studies required to document compliance with NEPA and other environmental laws, Executive Orders and Regulations.

5. Development of the necessary Engineering Study which will show in detail the costs estimated to be incurred by the proposed project for 10-year period after commencement of operation.

6. Development of other project details which includes, as applicable, an appropriate fuel supply, all necessary construction permits, transmission interconnection arrangements, Ownership and Operating Agreements for project, equipment specifications, etc.

Reorganization

REA recognized that the importance and complexity of the power supply arrangements dictated a reallocation of staff responsibilities. The organization and operation of REA had remained virtually unchanged since 1969 when the annual loan volume was under $350 million and when all loans were at a single interest rate. In 1969, power supply loans represented but 25 percent of the REA financing program; in 1979, ten years later, the loan guarantee program of financing for G&Ts was 87 percent of total loan volume. G&T loan guarantee commitments in 1979 amounted to $6.5 billion.

The reorganized REA electric staff will now be able to devote more time and attention to the area which constitutes the largest element of overall costs and loan commitments. The major objectives of the electric staff reorganization are as follows:

-- To provide timely advice and assistance to generation and transmission systems as they begin the long process from loan application to final approval;

-- To focus on both the distribution systems and the generation and transmission systems. Changes are not being made at the expense of either portion of the program, but will assure our ability to respond to the many new demands being made upon REA, its borrowers, and the utility industry generally;

-- To permit REA to deal effectively with emerging energy technologies by providing a single coordinating division to deal with borrowers' involvement in supplemental energy development;

-- To facilitate continued streamlining and simplification of loan review procedures for distribution and G&T borrowers;

-- To organize activities by program functions in order to conserve staff resources and in this manner be able to assign more people to handle the more pressing demands of our borrowers.

Other Initiatives

Other major efforts underway at REA to deal with the new dimensions of the energy situation are as follows:

Load Forecasting

It is essential that new plant capacity match the need for that capacity when completed. In order to more finely tune REA's load forecasting capabilities, two separate studies are now in progress. One is a study by Oak Ridge National Laboratory of the load growth characteristics of the rural areas served by REA borrowers. The end product of this econometric study should yield a better picture of future electric demand for the rural areas.

A joint EPRI/NRECA/REA study of the methodologies and procedures utilized in load forecasting is now in progress and should be completed in 1981.

Conservation

As I explained in greater detail in testimony before this subcommittee on March 19, 1980, and the Senate's counterpart on May 6, 1980, REA is proposing to undertake a massive new effort in the conservation field. Through the deferral of principal payments under Section 12 of the RE Act, borrowers will be able to offer low interest loans (5% or less) to their consumers to weatherize their homes. It is believed this conservation effort will forestall the need to add some new expensive generating capacity, which should help lessen the need for additional rate increases. Closing date for comments for our proposed rule was May 19, 1980. Final rules are now being prepared.

Load Control

REA is actively encouraging its borrowers to install load control devices which will reduce peak demand and allow better utilization of existing plant capacity.

Supplemental Energy Sources

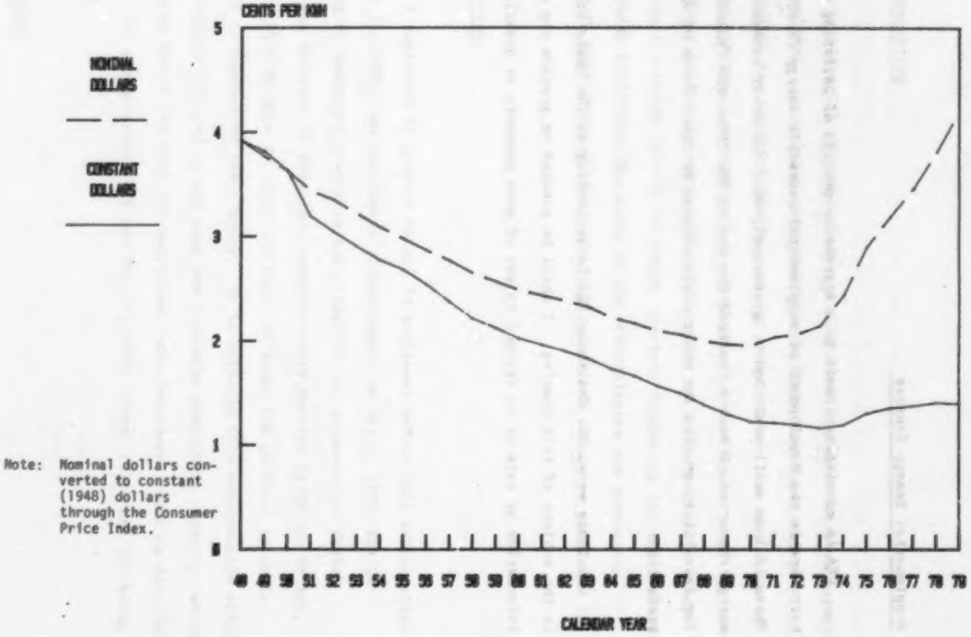
REA is committing itself to a aggressive program of assisting the borrowers in the development of supplemental renewable energy sources. These include small-scale hydro, geothermal, wind and other renewable energy resources. I have authorized the use of REA front-end financing for feasibility studies and other costs related to these forms of energy production.

In these ways, Mr. Chairman, REA is responding to the basic issue that is the subject of this hearing. I shall be pleased to provide any additional information or data or to respond to any of your comments or questions.

EXHIBIT 1

AVERAGE RESIDENTIAL PRICE PER KWH

REA ELECTRIC DISTRIBUTION BORROWERS



Note: Nominal dollars converted to constant (1948) dollars through the Consumer Price Index.

STATEMENT PRESENTED BY ROBERT D. PARTRIDGE, EXECUTIVE VICE PRESIDENT,
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, ON:

FACTORS AFFECTING RISING ELECTRIC RATES IN RURAL AREAS

BEFORE THE HOUSE AGRICULTURE SUBCOMMITTEE ON CONSERVATION AND CREDIT
JUNE 4, 1980 -- WASHINGTON, D.C.

Mr. Chairman and Members of the Subcommittee:

My name is Robert D. Partridge. I am Executive Vice President of the National Rural Electric Cooperative Association, the national service organization of nearly 1,000 rural electric systems operating in 46 states.

Mr. Chairman, in order to comply with the time guidelines established for today's hearing, and still ensure that a full measure of relevant information on this extremely important subject is available to the subcommittee, I will, with your permission, submit a copy of my full statement for the record and take time this morning only to briefly summarize it.

The subject at hand -- factors contributing to rising electric rates in rural America -- is one of extreme concern to NRECA and to the member cooperatives we represent throughout the nation. You will be getting a first-hand account of how this very grave problem impacts upon individual rural electric distribution cooperatives and their cooperatively owned power supply, or G&T, systems in statements to be presented by other rural electric spokesmen later today. For my part, I would like to set forth our views on some of the broad and pervasive national problems -- such as inflation, high interest rates, rising fuel costs and an ever-growing regulatory burden -- which are directly contributing to the higher energy costs being borne by all Americans -- rural and urban.

The relationship between the devastating national dilemma of inflation and the high cost of energy is a complex, and to a large extent I'm afraid, a self-perpetuating one. The rise in the cost of all forms of energy we have experienced during the past few years is both a cause and an effect of this inflationary spiral.

It's obvious that substantial increases in the cost of electric power at the generation and distribution levels have a direct impact on all consumers' cost of living, as measured by their monthly bills for electricity. Beyond this direct effect, power cost increases add to the cost of nearly every material, product and service in the marketplace, as agricultural, industrial and commercial entities have no choice but to pass along those increases, with the burden ultimately being borne by the consumer. So in this sense, increases in power costs are one of the many contributors to inflation in general.

At the same time, however, inflation has had a significant effect on the price electric cooperatives -- and all other producers and distributors of electric power, for that matter -- must pay for coal and other primary fuels; for transformers, poles, line and all the other equipment and materials they need, not to mention the cost of labor and other services necessary to operate a modern utility system. From this perspective, electric cooperatives, like every other consuming entity, are victims of the inflationary cycle.

Nowhere is the effect of inflation on the cost of producing power more evident than in the construction of generating facilities. As an example, the capital required to build coal-fired, cooperatively owned generating stations has soared during the past 15 years in nearly all parts of the nation. I have attached to this statement a table (Attachment "A") which illustrates the increased capital costs being borne by generating cooperatives in several regions of the country.

Prior to 1968, capital costs varied from $136 to $162 per kilowatt of generating capacity. Capital costs for generating stations on which construction began during the past five years have risen to more than $900 per kilowatt -- an increase of more than 550 percent.

For the past two years, NRECA, in conjunction with the National Rural Utilities Cooperative Finance Corporation (CFC), has had in progress a very comprehensive study of the power supply future of the rural electric program, with special emphasis on the factors affecting both cost and availability of new power sources. The results of that study are summarized in a thirty page report entitled "Electric Power Supply. . .Issue of the 80's", a copy of which already has been provided to each member of the subcommittee.

There is no way I could do justice to the full scope and detail of this important study in a short verbal summary. But to boil the power cost aspect of this two years' work down to its very essence, I will say that our study group identified three fundamental factors contributing to the rising power costs which rural electric co-ops and their consumers have endured -- and probably will continue to endure -- in recent years. These three causes are: rising fuel costs, problems relating to the availability and cost of capital, and last, but certainly not least, the impact of overregulation at the federal, state and local levels. Let me address each of them individually.

FUEL COSTS

Fuel cost accounts for 45% of the total cost of producing electricity at the busbar -- or delivery point -- of a coal-fired power plant. In turn, generating cost comprises approximately 55% of the total cost of power to the ultimate consumer. In other words, the cost of the coal used in a power plant accounts for roughly 25 cents out of every dollar in a consumer's monthly electric bill. While virtually every American is painfully aware of what has happened to the price of our other major fossil fuel resource -- petroleum -- during the past decade, not many are aware that coal prices also have gone through the roof in recent years. In the period 1969-79, for example, utility coal prices grew by a factor of nearly 350 percent, from an average combined price of $6.13 per ton to an average contract price of $25.79 per ton as of August, 1979. In the spot market, the average price that month was even higher -- at more than $28.00 per ton. I have attached (Attachment "B") a table prepared by our Power Supply Study Committee which compares these figures to the cost increases associated during this period with the other primary fuels used for electric generation.

Increases of these proportions in the cost of energy must be regarded as a major element in the economic crisis confronting the nation. They have a clear and measurable impact on the personal budget of each consumer in the cost of energy he uses directly. Depending upon his individual circumstances and level of income, that impact may range from a tolerable reduction of income available for saving and investment, to a very real and genuine physical hardship. There is, as I mentioned before however, an additional impact in the added cost of other goods and services the consumer requires, as the higher cost of energy enters into the productive chain and becomes a significant factor in the general inflation of prices.

For the economy generally -- and this, of course, includes rural electric consumers -- increases in the cost of energy on the scale experienced since 1969, and particularly since 1973, are bound to affect the real level of production adversely, discourage economic growth, retard the creation of new jobs, and endanger the profitability of many existing enterprises.

Taken together they have the potential of contributing substantially to business recession, widespread individual hardship, and a reduced standard of living for all Americans.

COST OF CAPITAL

Before discussing in detail how recent growth in the cost of capital -- that is, higher interest rates -- has been a factor in the rising cost of electric energy in rural areas, let me make a few comments about rural electric financing in general.

While a great deal has changed in the rural electrification program since its formation nearly a half-century ago, there is one very important factor which still applies. To this day, rural electric systems serve areas that require them to install more miles of line to reach and serve their consumers than all the lines owned and maintained by all the urban based investor-owned-companies put together. Yet the power companies serve more than eight times the number of customers with their fewer miles of distribution lines. What this means, simply put, is that rural electric systems have a significantly higher investment in distribution facilities per customer served than do the urban-based investor owned power companies.

To offset this handicap, the federal government, through the rural electrification program of REA, has provided technical assistance in the organization and management of the rural systems, and moreover, has given the co-ops the advantage of lower cost, long term federally assisted financing in the form of the REA loan program. The non-profit, consumer-oriented structure of the cooperatives also has been a equalizing factor in the rural electrificaton effort.

In recent years, however, the degree of federal assistance in meeting the financing of needs of rural electrics has undergone some very significant change. This has been particularly true with regard to the financing of the co-op's growing need to become more self-reliant in the area of power supply.

At present, the cumulative total of REA loans to rural electric power supply systems for generation and transmission facilities is $18.8-billion. Of this amount, approximately $3.4-billion was advanced by REA as direct loans at the old 2% interest rate which was in effect prior to 1973. The balance -- approximately $15.4-billion -- has been committed under the REA loan guarantee program since 1973 with an interest rate based on the federal government's cost of borrowed money, plus an additional one-eighth of one percent to cover administrative costs. This rate varies with time and money market conditions, but as an example, the rate applied to these loans acquired through the Federal Financing Bank was just above 10.5 percent as of May 16, 1980. Interest rates applied to loans made through the REA insured loan program -- mainly to distribution systems -- also have increased markedly since the 1973 changes in the RE Act.

Once more, it's obvious that this escalation in interest rates -- with increases ranging from 150 percent to more than 500 percent in some cases -- has already had -- and will continue to have -- a significant long-term effect on the rates charged by rural electric systems.

OVERREGULATION

Ten years ago electric utilities were still able to bring coal-fired generating plants into service that had been planned, designed and built in three to five years. Nuclear plants at that time were generally planned and constructed in a period ranging from five to seven years.

Today, that time frame has stretched to a minimum of seven to ten years for coal-fired plants and 12 to 14 years for nuclear facilities. These time extensions are due, in very large measure we believe, to the growing complexity, duplication and confusion of public regulatory processes and administrative procedures, particularly as they relate to the environmental area. This extension of the time required to plan, acquire the growing number of necessary permits, design, and construct utility projects of every sort today results not only in a delay of service, but also has a direct impact on the costs paid by consumers.

With an annual price inflation of 9% to 10% on electrical equipment and construction costs, regulatory delay means higher construction costs, as well as increased interest charges on non-producing capital investment during the lengthened period of construction. On power generation projects this delay also results in a need to purchase more expensive replacement power if the plant fails to come on line when needed due to regulatory delay.

Bismarck

I have attached (Attachment "C") for your information a case study prepared for our power supply report by the Basin Electric Power Cooperative of [redacted], North Dakota. In this well documented and vivid description of Basin Electric's experience with the Missouri Basin Power Project's Laramie River Station, the 15 months of delay caused by changes in Wyoming state law is estimated to cost the Project participants and Basin Electric more than $51-million. Together with the $7.8-million expense of litigation and settlement costs associated with the Whooping Crane lawsuit, the total cost will be close to $58.8-million. All of these costs, of course, will be borne by the consumers of Basin Electric and other Project participants.

There can be no responsible disagreement over the necessity of carefully considering the environmental impacts of energy projects and avoiding or mitigating the undesirable effects wherever and whenever possible and reasonable to do so. Certainly rural electric cooperatives recognize and support that proposition. We are consumer based organizations. Our management and directors, like our member/owners, are citizen consumers who share every other citizen's stake in the protection of a healthy and wholesome environment and wise conservation of our natural resources.

For rural electric cooperatives, the producton of electricity is not to make a profit; it is strictly to serve the energy needs of the consumers who own, control and direct the actions of their electric supply organizations. The consumers are the cooperatives, and their cooperatives have the same broad interest in protecting all that is good and desirable in our American way of life that they themselves have as individual citizens.

The issue in all of this is not whether the environmental, public health and safety, and other values various laws and regulations have addressed should or should not be considered. They are important values, and all reasonable measures should be taken to protect them from any adverse impacts of energy development. The issue is rather one of methods employed and whether they are producing reasonable and balanced decisions of overall net benefit to the public and the nation.

In the burgeoning requirements and cost impacts of regulatory decisions, the question becomes what is necessary and what is not. What is constructive and productive of public benefit, and what is counterproductive and, on balance, harmful to the public welfare? What is worth the cost, and what costs more than it is worth?

SUMMARY

The factors affecting rising electric rates in rural areas are many and complex. And while this may give faint comfort to consumers hard pressed to cope with an every growing monthly power bill, the truth of the matter is that a large measure of the problem goes far beyond the control or even influence of the typical rural electric cooperative.

> Inflation and high interest rates are national problems which will require a determined and concerted effort by all segments of our economy and our society to resolve.
>
> Rising fuel costs are subject to a myriad of forces relating to both national and international policies and actions. Until such time as our nation achieves a much greater degree of energy independence, the overall pricing of primary fuels will be a factor we can influence, but not control.

This is not to say, however, that nothing can be done to help reduce some of the forces which are driving energy prices ever higher.

> Overregulation, and its negative impact on both the cost and availability of energy supplies, is a problem that was created by government and can be solved by government. NRECA and its member cooperatives have consistently sought -- and will continue to fight for -- changes in existing and proposed laws and regulations to inject a sorely needed balance in our nation's Energy - Economy - Environment equation.
>
> Power pooling and load management programs are just two of several types of activities which co-ops around the nation have undertaken to help make the most efficient use possible of existing facilities, and thereby make it possible to postpone the addition of expensive new generation and transmission plant. With the support and encouragement of the Congress, REA and other interested parties within government and without, we anticipate even greater involvement in these areas in the future.

Finally, even if the co-ops' opportunities to deal directly with the factors causing higher electric rates are somewhat limited, there are a number of actions co-ops already have put into effect to help their consumer-member cope with increased energy costs. Earlier this spring I testified before this subcommittee on the conservation and weatherization programs which the vast majority of rural electric systems have initiated to assist their members make more efficient use of the power they need in their homes, on their farms and ranches, and in their businesses. We fully expect to see further progress in this area as consumers become ever more conservation oriented through the expanded information and education program many co-ops are undertaking with support from NRECA, REA and others.

Thank you for this opportunity to express our views.

# # #

(The attachments referred to are held in the subcommittee file.)

STATEMENT OF GIRTS KRUMINS
VICE PRESIDENT AND GENERAL COUNSEL
COLORADO-UTE ELECTRIC ASSOCIATION, INC.

Good day, Mr. Chairman, members of the Subcommittee, ladies and gentlemen: My name is Girts Krumins. I am the Vice President and General Counsel of Colorado-Ute Electric Association, Inc., which is headquartered in Montrose, Colorado. I want to thank you for inviting me to speak to you today about a subject which is of great concern to Colorado-Ute Electric Association - "Why Rural Electric Rates Are Going Up".

Colorado-Ute is a rural electric generation and transmission cooperative which is owned by, and supplies wholesale electric power and energy to, thirteen member electric distribution cooperatives. Our member systems supply about 120,000 customers in western and southern Colorado. Colorado-Ute and its members serve over one-half of the total land area of Colorado, as shown on the attached map entitled "Colorado-Ute Electric Association Member Systems Certificated Service Areas".

Colorado-Ute and its member systems are fully regulated as to rate matters by the Public Utilities Commission of Colorado.

Our principal generating facilities are mine-mouth, coal-fired generating units located near Craig and Hayden, Colorado, in the northwest corner of the state. Colorado-Ute operates two units at Hayden Station with a total capacity of 446,000 kilowatts. At Craig Station, Colorado-Ute operates one 400,000 kilowatt unit which began operation in 1979 and will also operate a second 400,000 kilowatt unit which will begin operation next month. A portion of the capacity of the Craig and Hayden Stations is jointly owned with others; Colorado-Ute's share of ownership of the two stations amounts to 468,000 kilowatts. Colorado-Ute has begun construction of a third 400,000 kilowatt unit at Craig Station which will be fully owned and operated by Colorado-Ute. The location of the Hayden and Craig Stations, as well as our other smaller generating units (which supply a total of about 60,000 kilowatts), is shown on the attached System Map.

My comments to you today are based on Colorado-Ute's experience. However, I believe that most of the problems I will discuss are felt by other rural electric systems as well. Colorado-Ute's wholesale electric rates constitute the single-most important component of the retail electric rates charged by our member systems. The wholesale cost of power currently constitutes about 60% of our member systems' total costs, and the percentage is going up. Obviously, since wholesale power costs constitute such a great percentage of our members' total costs, both Colorado-Ute and our member systems are acutely aware of the large increases in such costs which have occurred over the past few years.

From 1959, when Colorado-Ute's first plant began operation, until 1974, there was only one change in our wholesale power rates, a 7% decrease. Gains due to economies of scale were more than sufficient to offset inflation and other cost increases during that period. Unfortunately, primarily due to new costs of federal laws and regulations, our rates have gone up at an alarming rate since then.

Our study of the costs of regulation (a copy of which is attached) shows that most, if not all, of the retail cost increases of our members could have been avoided but for such regulatory costs.

During the period of 1970 through 1978, the weighted average residential rate charged by Colorado-Ute's thirteen member systems increased from 2.72 cents per kilowatt hour to 3.75 cents per kilowatt hour, an average increase of 1.03 cents. At the same time, as of 1978, the costs of compliance with governmental regulations at our coal-fired steam generating plants, which supply the bulk of energy sold to our members, and are most impacted by federal and state regulations, amounted to .53 cents per kwh -- more than one-half of the increase in retail residential rates.

Our direct costs of compliance with governmental regulations at our coal-fired steam generating units during the study period we used (year ended June 30, 1978) were $8,140,000, or .53 cents per kwh of coal-generated electricity supplied from our units and sold by our member systems. Virtually all of this cost is due to compliance with regulations enacted since 1970, which directly affect power generation. I would like to emphasize that the direct costs include only those costs that could be specifically identified and quantified. Costs hidden in prices we pay for materials, supplies and services purchased from others (including purchased power), unless separately stated, are not included.

When consideration is also given to the additional costs due to government regulation affecting the transmission function of Colorado-Ute and the distribution function performed by its member systems, and both Colorado-Ute's and its member systems' indirect "hidden" costs, it is apparent that but for all of these costs, all, or nearly all of the 1.03 cents retail increase in rates could have been avoided, and in some cases, rates could have been lowered. Several of our members had residential rate increases of less than 1.03 cents during the period 1970 - 1978. One member system had an increase of only .28 cents in its residential rates. Accordingly, we are convinced that were it not for the burden of governmental regulatory costs, retail electric rates in our area would be about the same today as they were in 1970.

The cost of governmental regulation is, of course, not the only factor contributing to rising rural electric rates. Colorado-Ute has identified four factors which are significantly contributing to increasing wholesale power costs and affecting finances and operations at all levels. These four factors are:

1. inflation
2. interest costs
3. fuel costs
4. regulatory costs

We feel that we could deal with each of these factors by itself, and still keep our costs under control. Unfortunately, however, these factors are not merely additive - it is the compound effect of all of them that concerns us. Because of inflation, construction costs of plants rise; regulatory requirements necessitate additional facilities at new plants as well as costly retrofits at existing plants; and all of these capital costs must be financed at record high interest rates.

The compounding effect of rising inflation and interest costs is shown in the following table:

Generating Unit (Year of Completion)	Cost of Construction ($/kilowatt)	Interest Rate	Interest Per Kilowatt Per Year *
1. Hayden Station Unit 1 (1965)	$162	2%	$ 3.24
2. Hayden Station Unit 2 (1976)	637	4.4%	28.03
3. Craig Station Units 1 and 2 (1979 - 1980)	972	8.2%	79.70
4. Craig Station Unit 3 (scheduled 1983)	1,160 (est.)	10.5% (est.)	121.80 (est.)

* These numbers represent the initial annual interest costs. These costs decrease as the initial plant is depreciated, and increase as equipment is replaced or more equipment is added to the plant.

In another instance, financing the retrofit of a new hot-side electrostatic precipitator at Hayden Unit 1 (replacing the original cold-side precipitator), resulted in doubling of the interest component of the cost of power produced by this Unit. To put it another way, it cost as much to pay interest on the precipitator as on the total base plant.

Colorado-Ute's overall costs for interest represent an even more stunning increase. In 1973, our interest costs accounted for about 7 1/2% of our operating expenses. In 1980, we expect interest to account for 30% of our total expenses. In dollars, our interest expenses have risen from about three quarters of a million dollars in 1970 to over 22 million dollars in 1979.

Colorado-Ute's ability to borrow money under the REA program at 2% interest ended in 1972. Our current borrowings are generally at current market rates - which, of course, are many times the 2% rate.

Comparing the annual interest expense on Hayden Unit 1, which was $3.24 per kilowatt, to the cost on Craig Station Units 1 and 2, which is $79.70 per kilowatt, you find the interest cost on Craig Station is over 24 times greater. Costs of construction and interest rates have increased even more since then, so that our interest expenses per kilowatt for Craig Unit 3 is expected to be almost 40 times greater.

Most electric utilities have been particularly hard hit by rising fuel costs. Colorado-Ute has been rather fortunate in that it has historically relied upon our most abundant domestic fuel resource - coal - which it has procured under long-term contracts and burns in mine-mouth generating plants. Even so, the price of coal at our Hayden Station has more than tripled since 1970. The price increases under our long-term contracts are cost-based, and the cost of mining coal has increased for very much the same reasons as the cost of generating electricity. I will discuss the underlying causes in more detail later.

Rising inflation, interest, and fuel costs have greatly affected the wholesale cost of power. But these are only the three most obvious factors causing rising power costs.

I would like to emphasize what a more insidious cost factor is doing to us and the rest of the electric power industry--that is, the cost of regulatory compliance. As shown in the attached study, we concluded that the direct cost of regulatory compliance in 1978 amounted to about 35% of our total cost of production at steam generation plants. The greatest cost increases have been those associated with federally mandated clean air and water programs, and by new federal requirements for transmission lines crossing federal lands, as well as federal requirements related to coal mining.

First, regulations require large increases in plant investment. At Craig Station, regulations requiring installation of electrostatic precipitators, wet limestone sulfur dioxide scrubbers and other equipment cost $210 million, or nearly one-third the cost of the entire project. The sulfur dioxide scrubbers alone added approximately $80 million to the cost of the plant. In our view, this was an unnecessary burden, since even without scrubbers the sulfur dioxide emissions at the plant are well below the applicable federal standard of 1.2 pounds per million Btu because of the extremely low sulfur content of the coal. Furthermore, ambient air concentrations of sulfur dioxide would have remained far below the national primary and secondary standards established by EPA as necessary for protection, with a safety margin, from any known or anticipated adverse effects on public health and welfare. Current EPA regulations promulgated pursuant to the Clean Air Act Amendments require a minimum of 70% scrubbing for plants burning low-sulfur western coal (EPA required an even greater removal efficiency for our scheduled Craig Unit 3) regardless of the ambient levels of sulfur dioxide.

Perhaps in some of the heavily populated areas, where the primary health standard is being violated, full scrubbing should be required. But in our area, scrubbing makes little sense, and imposes a large burden on electric consumers.

Because of government regulation, productivity in generation of electric power has been steadily decreasing. Only 42 employees were needed to operate Hayden Station Unit 1 in 1965. When Unit 2, which is slightly larger, began operations in 1976, you would have expected the number of employees to perhaps double. Instead, primarily due to regulatory requirements, the number of employees has gone up four times, to a current level of 169. Most of the additional employees are needed for operation, maintenance, testing, and monitoring requirements imposed by environmental regulations. At Craig Station, more than 100 employees are needed to operate and monitor environmental equipment at the plant; the total work force is a little over 300. Other people have been added at our headquarters to supervise the environmental programs, process necessary paperwork, and appear at seemingly endless hearings and other administrative proceedings. In addition, the additional equipment requires energy to operate - thus, output per manhour, and net generation per Btu heat input is going down. As we have already noted, the direct cost of regulatory compliance already accounts for about 35% of our total steam generating cost. But, as shocking as that may seem, the end is not in sight. At Craig Station, we estimate the direct cost of regulatory compliance will amount to fully 45% of the total generation costs.

Transmission line costs are also going up because of governmental regulation. In 1960 it cost about $15,000 per mile to build a 115,000 volt transmission line in mountainous terrain. By 1977, the same size line cost $95,000 per mile.

Let's take a look at how regulations affected these costs. The chart shown in Figure 1 on page 10 of our attached study shows the base cost of a 115,000 volt line in 1960 was $15,000 per mile. The original schedule called for construction in 1974. By that time, with inflation, the cost would have risen

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to about $40,000/mile, but because of regulatory delay, the line was actually built in 1977 - when the inflated cost would have been about $52,000/mile. Further regulatory requirements, however, raised the cost to $95,500/mile. The total regulatory and delay cost on this particular 37-mile-long line amounted to 59%, or $55,000 per mile, adding more than $2 million to the total cost.

The operating expenses resulting from delays in the construction of new high voltage transmission lines is another factor affecting our costs. These delays are directly or indirectly related to regulatory procedures. The construction of a sorely needed transmission line into the San Luis Valley area in South Central Colorado was delayed for over 2 1/2 years until federal officials finally decided that our preferred route could not be built now because of ongoing wilderness studies and other constraints. This delay has wasted 16 million kilowatt hours per year through transmission line losses, and peaking units in the Valley consume an extra 120,000 barrels of oil or equivalent natural gas annually because the line is not in service.

While the development of coal has been announced as a key to federal plans for energy independence, federal coal leasing policies so far have actually tended to drive up the price of coal and inhibit the use of this abundant resource. In the Federal Coal Leasing Amendments of 1975, Congress has set a royalty floor of 12 1/2% for surface mines. By DOI policy, the corresponding minimum royalty rate for underground coal is set at 8%. Since the federal government controls about half of western coal, it can be a market leader; as a result, royalty rates of state governments and private coal owners are also being pushed upward.

Recently, I was advised by our coal supplier for Hayden Station of another problem caused by federal law and regulations which may increase our coal costs at that plant considerably - and for no good reason. This problem results from the diligence requirements for federal coal leases established pursuant to the Mineral Leasing Act Amendments of 1976, which require that at least 1/40, or 2 1/2% of the coal in a "logical mining unit" be mined before the end of ten years.

The mine for the Hayden Plant is essentially one mining area, and the coal reserves are dedicated to supply Hayden for the life of the plant. The mine consists of three "noncontiguous" areas suitable for surface mining. By the provisions of 30 USC §202a, each such tract, not being physically contiguous, constitutes a separate Logical Mining Unit (LMU) - by law, not by any real logic. The mine is basically a "captive mine" designed to supply only the total needs of the Hayden Station. Two draglines are utilized to meet production requirements. Regardless of any diligence requirements, the same amount of coal will be mined to meet the needs of the generating station over its lifetime. It appears, however, that federal rules will require that a third dragline, together with the necessary support equipment and personnel, be placed in operation because all three tracts need to be mined by 1986 to meet "diligence" requirements. All this, if permitted to occur, will result in pure waste of consumers' money through higher electric rates. I have not yet received the exact cost of the new equipment needed solely to meet the alleged diligence requirements, but I have been told by our coal supplier that it will be in the millions of dollars.

This is not an isolated instance. Even though there is a substantial legal question whether or not the 1976 law regarding diligence can be made applicable to pre-1976 leases, DOI has expressed its intent to so apply the rule by regulation. Apparently, because of the legal questions, DOI has also asked pre-1976 lessees to voluntarily amend their leases to incorporate the new diligence requirements, with the implication that dire consequences will result from failure to do so.

All of these mounting regulatory costs have already reached an alarming level. However, we feel that this may be only the "tip of the iceberg" because implementation of additional regulations could add considerably more to electric bills.

While the information provided in this presentation relates to the particular experiences of Colorado-Ute, our findings and conclusions are generally confirmed by the Report of the Power Supply Study Committee of National Rural Electric Cooperative Association and National Rural Utilities Cooperative Finance Corporation, a 2-year nationwide study entitled "Electric Power Supply ... Issue of the 80's." I believe a copy of this report has been previously made available to each member of Congress. New visibility regulations, additional wilderness areas, endangered species and coal leasing regulations are just a few examples of how regulations may affect future costs. The entire environmental process under NEPA and CEQ regulations has, in our view, resulted in complete subversion of the original intent of the Act. Rural electric systems, as distinguished from other segments of the industry, are particularly subject to the regulatory maze that has

pages tightly bound

developed. The inevitable result will be to push electric rates - and particularly rural electric rates - up, and up, and up.

ALL OF THE COSTS OF REGULATORY COMPLIANCE ARE ULTIMATELY PAID BY THE CONSUMER.

Colorado-Ute is certainly not opposed to all regulation. However, we do feel that what is needed is a balance between environmental costs, governmental regulations and consumer benefits. I have attached a copy of a resolution passed by the Colorado-Ute Board of Directors addressing this problem and offering some suggestions for improvement.

My conclusion is that the real answer to why rural electric rates are going up lies with the vast proliferation of federal laws, rules and policies which have increased our costs. The increased costs paid by rural electric consumers result from actions taken right here in Washington. If Congress is truly interested in doing something about this problem, one of the greatest ways to effect savings would be to review and make changes in the laws giving rise to unnecessary governmental regulations. Federal policy changes could also help reduce the rate of inflation and interest.

I ask that you, as members of Congress, look closely at this problem and help us keep rural electric rates as reasonably priced as possible. Thank you for your time and attention.

(The attachments to the statement are held in the subcommittee file.)

STATEMENT OF GEORGE A. FIFE, CO-CHAIRMAN, SELECT PROFESSIONAL COMMITTEE ON ELECTRICAL UTILITIES AND SERVICES, HUDSON, FLA.

Mr. Chairman, Members of the Committee,

My name is George A. Fife. I currently reside at 219 Club Wildwood in Hudson, Florida. Today I appear before you as the spokesman for "The Select Professional Committee on Electrical Utilities and Services". The Select Committee, as we have become known, evolved out of concern among individuals, in the area of the Fifth Congressional District of Florida, about their electric rates and their steep and steady increase. Our concern in these matters, as individuals, dates back some five to seven years. About a year and a half ago these individual concerns began to coalesce in the various civic and service organizations, first in West Pasco County and later in portions of Hernando, Citrus and Pinellas counties as well, roughly the service area of the Withlacoochee River Electric Cooperative. As we ~~watched~~ learned that our wholesale electric rates had soared by over 400% in five years, our concern turned to alarm and then to action. (See Attachment F to this presentation) A petition containing over 16,000 names was submitted to our Congressman requesting that the matter be investigated. Of special concern to the petitioners, who represent all shades of political persuasion, was the fact that the rates charged by Withlacoochee, an REA Cooperative, were significantly higher than the rates charged by Florida Power, a private investor owned corporation.

Congressman Kelly, suggested that a committee be formed from among the petitioners to work with him in identifying more precisely the problem. The Select Committee, on a purely volunteer basis, came into being to assist our Congressman and has gradually taken on an independent existence dedicated to a rational solution of our energy supply problems. Coming from an area populated with highly qualified retirees, a well rounded committee with a truly extraordinary range of talents was quickly formed. A list of our more active members with a short resume of each is attached to this presentation, for the record. (See Attachment A) It is sufficient here, for me to simply note that our group includes a retired Chairman of the Board and Chief Executive Officer of a major North American utility, professional engineers, master electricians, auditors, accountants, private businessmen, retired corporate executives and former state and federal government employees with distinguished careers in the public service. In summary, Mr. Chairman, we are an ad hoc, nonpartisan committee, qualified by proven experience to represent over 16,000 petitioners who are concerned with their electric service and its national implications.

Since we are an unfunded, volunteer group, we have had no money for public relations and this has led to uncertainty in some quarters about what the Select Committee stands for and what it is trying to accomplish. Because of this, I believe it is important for me to do my best to clarify this point. Let me begin with some negatives. Although we have been critical of REA, and will continue to criticize it when we feel it is justified, the Select Committee is not against REA. Very much to the contrary, we fully recognize the vital role REA has played in the agricultural leadership of our nation. We know how well they have served our nation over the years. Too many of our own members were born and raised in rural America for it to be otherwise. Furthermore, the Select Committee has no illusions about the seriousness of the energy problem facing our nation. The days of cheap energy are over. We do believe, however, that the burdens of ever escalating energy costs have become so great that the time has come for consumers, utilities and our elected representatives to join hands in an effort to assure as equitable a sharing of these burdens as possible.

In pursuing this objective we do not come before this committee, hat in hand, pleading for the federal government to solve all of our problems. The Select Committee recognizes that the cooperative structure of the REA affords us a number of opportunities for action at the local level. We have recently elected one of our members to the local cooperative's Board of Trustees and expect to elect others as the various board seats come up for election. We have also recently initiated a series of member-management meetings which we hope will lead to our members being able to ~~[illegible]~~ exercise their rights in an informed and responsible manner. The hard facts of economic life today assure that members of the Withlacoochee River Electric Cooperative will exercise their rights to the fullest extent. Under the circumstances, we believe that it is clearly in the best interests of all concerned that the members be as well informed as possible.

In response to the urgent request from so large a block of Fifth District citizens, Congressman Kelly requested the Select Committee to advise him concerning what was needed from REA in the way of background information. Based partly on our recommendations he prepared and dispatched a letter to the Administrator, Mr. Robert. W. Feragen, on December 22, 1979 and Mr Feragen's reply was received by Congressman Kelly on February 8, 1980. Both of these important documents are attached to this presentation for the record. (See attachments B & C) At Congressman Kelly's request, the Select Committee undertook to review the material supplied by REA. While the material was timely and responsive to our Congressman's request, as experienced professionals, a working group of ~~an~~ our committee found it incomplete and disappointingly short of what it had expected. On the other hand our working group was grateful for the REA material because it permitted the Select Committee to gain a meaningful appreciation of the complexity of the problem. It also opened the very real prospect that ours was not a purely local problem but one shared by other rapidly expanding Sun Belt areas across the country. Accordingly, we advised Congressman Kelly that in our view a nonadversarial congressional investigation was needed. After he had considered and then accepted our recommendation he requested you, Mr. Chairman, to hold these hearings.

Our working group then prepared a written report of its examination of the material supplied by REA. Our purpose was to make available some of the more detailed findings that led to our belief that this hearing should be requested. The report, supporting Congressman Kelly's request, was forwarded to you, Mr. Chairman, through Chairman Foley of the full committee by the Select Committee on March 4, 1980. A copy is attached for the record. (See attachment D)

At this point, gentlemen, I would like to review as briefly as possible the complex issues which the Select Committee encountered in trying to obtain an answer to what proved to be a deceptively simple question. You will recall that I said this whole matter began when average individual residential consumers of Florida Power and Withlacoochee, sometimes living across the street from each other, noted that the energy supplied by our Cooperative was significantly more costly than that supplied by Florida Power. Their natural question was why? To outward appearances the service was comparable, demand was about the same, and yet Florida Power was a privately owned corporation that had to pay taxes that the Cooperative did not pay, it had to pay dividends to its stockholders and it had to raise its capital in the open market without access to the lower cost funds available to REA Cooperatives. It is interesting to note that consumers in our area have still not received a straight forward quantitative answer to their question. Since an explanation does exist, is it any surprise that there is a feeling of exasperation and has taken hundreds if not thousands of man hours of intensive study by the experienced professionals on our committee for us to pry out enough information to feel reasonably confident that we now understand the main elements of the answer. Perhaps it is a rhetorical question but since the various utilities and regulatory bodies had this information, why did they not answer the question themselves in direct terms understandable to the public? As an aside, I should add that we find it difficult not to regard the vague and evasive answers which were given to consumers in our area a shocking example of bureaucratic insensitivity and poor public relations in both the public and private sectors. It is therefore a real pleasure to be able to say that there has been a marked improvement in this aspect of the situation. We believe your committee's taking an official interest in the matter, has contribued materially to this improvement and we would like, for the record, to reflect the appreciation of the petitioners we represent here today.

Now everyone recognizes that there are numerous understandable reasons ~~for~~ why the rates charged by comparable customers by two adjoining utilites ~~to~~ should differ. It is not, therefore, the fact that there is a difference, per se, that is of concern. What is of concern is how large the difference is and to what it is attributable. A number of studies have been made to establish the size of the difference. Perhaps one of the more complete studies was done by a retired Senior systems analyst on our committee and it is attached to this presentation for the record. (See Attachment E) You will observe that it is in close agreement with similar estimates contained in attachments C and D. From mid-1978 through mid-1980 the difference has oscillated within a range of about $7.00 to $9.00 per 1,000 KWH delivered to the residential consumer. Once the transient effects of the recently granted interim wholesale rate increase, received by Florida Power and its applied for residential rate increase dampen down, the difference should, we believe, return to its historical range. Our studies [illegible], however, that this difference [illegible] ~~[illegible]~~ be regarded as a constant. It derives from deep seated problems in the rate structures, the ever present cancer of inflation, and fundamentals of utility management derived from the past when national energy problems were vastly different from what they are today. In summary, we see this difference as precariously balanced on a number of factors, anyone or severally of which could, in the fluid economic environment of today, precipitate an abrupt and sharp upward jump from the present differential average of about $8.00 per 1,000 KWH. This has happened before as is pointed out in Attachment F to this presentation.

Before identifying some of the factors underlying the differential that sparked our original concern I would also like to direct your attention to the fact that there has also been a dramatic increase in the price of electric energy delivered to our residences, quite aside from the differential between Florida Power and our REA Cooperative. This can be seen in Attachment E to this presentation but its complexity is better focused in Attachment F. Mr. Chairman, many people in our area simply cannot afford ~~[illegible]~~ a frugal, dignified life with ~~[illegible]~~ [illegible] $68 per 1000 kwh. This is a social problem that effects not only retirees but also our young people trying to get a start and raise their families. I raise this point here because many of the factors affecting the price differential also effect the increase in the total dollars that electrical energy costs. Please also note that in our area we have had steady dramatic increases in cost aside from fuel costs which we all understand. It is our considered belief that prompt careful review and adjustment of regulatory and statutory requirements can have a significant effect on holding down the non-fuel cost increases.

In May 1979, the Florida Power Corp. charge for 1,000 KWH, including the consumer service charge was $20.82, whereas the Withlacoochee Coop Member's cost was $20.53, 29¢ less.

The ensuing reversal of cost positions discloses that in May 1980 the Coop member paid 22.6% more than the Florida Power Corp. customer and is indicative that something is drastically wrong. It is also apparent that the methodology used to structure rates for Coops has worked to defeat the original Congressional intent to provide electric service to rural areas at reasonable and economical rates.

Let me now highlight quickly some of the more disturbing factors that we find are exerting ~~a~~ an influence on both the absolute cost of electric energy in our area and on the differential between Florida Power and our Cooperative.

The information submitted by the REA, Attachment C, raises at considerable length the problem of the traditionally low load factors in residential service. You will note that our working group questioned this premise as a major factor explaining the cost differential. To further support this skepticism I would like to attach for the record a sample of some estimates we have made of the monthly Co-operative load factors. (See Attachment G) (You will note all but three months exceed 40%.) Any large utility would be quite envious of this good ~~a~~ load factor record. Furthermore, it is logical that our record should be relatively good. After all the large proportion of retirees in our service area are unchained from job requirements and more free to follow their own preferences on when they arise, eat, go to bed, etc.

They thus, following their own choices of life styles, tend to dampen the peaks on the daily demand curve with a resultant improvement in the overall load factor.

What the Select Committee finds the most disturbing about the REA supplied information dealing with load factors is that it borders on the deceptive. Load factors are important but the culprit that makes them so is not an overly rigid consuming public, at least in our service area. It is rather in the underlying rate structures designed to produce a specific cash flow to the utilities regardless of how the consumer behaves. No automated load control center, however well justified on technical grounds, can effectively cope with such a rate structure. It is important that everyone fully recognize how insidiously these rate structures pervade utility operation and work to defeat even major national objectives. One is the well known multi-block retail rate seen in, for example, Attachment E. Under such schemes the more kilowatt hours a consumer uses the cheaper is his average cost per kilowatt hour. The incentive is clearly for him to use as much energy as possible, not save energy. It was intended to be so and is an archaic self defeating relic in today's world of high cost energy. We are unabashedly told that the average Withlacoochee residential customer consumes 20% less energy than his Florida Power counterpart and hence if we consumed more energy we could get it more reasonably! (See Attachment J)

Perhaps even more devastating are the subtleties of the wholesale rate structure. The so called wholesale rate that Florida Power charges REA Cooperatives varies with the delivery voltage, naturally. To illustrate our point consider the four components of the rate at a delivery voltage of 69 Kilo-volts. There is first a flat Customer Charge of $115.00 to which is added a Demand Charge of $3.79 per KW and a two component Energy Charge. The first is a charge of ~~$0.02127~~ 21.27 mills for the first 440 KWH per KW, the second is a charge of ~~$0.01627~~ 16.27 mills for all additional KWH's. It is the first of these energy charges which is the insidious culprit. An examination of Attachement H shows that the 16 mil figure for wholesale energy is essentially cosmetic. In order to get ~~it~~ any at that price the sustained system load factor would have to be ~~maintained at~~ 60% or better. Such a load factor is out of the question for any distributing utility not loaded with four shift, heavy industrial customers. So in reality except for perhaps one or two heavy load months a utility like our Co-operative can have above average load factors and still pay for energy at the higher 21 plus mills per KWH. In short, the rate structure acts to assure a specified cash flow to the generating utility. (Parenthetically I should note that the figures in this example were prepared before the latest interim rate increase was granted Florida Power by the Federal Energy Regulatory Commission. The figures are different today but the conclusion they imply remains the same.)

Because of the importance of these rate considerations the Select Committee has just completed a thorough review of the massive three volume submission to FERC by Florida Power to justify its request for a wholesale rate increase. (FERC Docket No. ER80-206) The bottom line when it comes to regulatory bodies considering these requests is what constitutes a fair return on invested capital and what debit to equity ratio is required to attract the necessary new outside capital when capital expansion is a factor. In the case at hand the return requested was 15[illegible]% and the debit to equity ratio was 45%. There are no objective standards for setting these figures at these levels, only judgement and past experience in the industry. [illegible], All of the computer printouts and all of the testimony in these voluminous submissions are but window dressing to translate these figures into a rate to the customer which will produce the required revenue. Frankly, experts on our committee question the need for a return as high as 15[illegible]% and the justice of a debit to equity ratio as hard on the consumer as 45%. But it is, afterall, an area where even experts of good will can legitimately disagree. What is of greater importance is that this whole judgmental area should be re-examined in the light of today's national economic and energy conditions. The examination should not be for the purpose of simply validating past practise but to determine what would be fair practise today. For example, under todays conditions, need the consumer be expected to provide so large a part of the cost of expansion out of current revenue? Certainly many well run and prosperous utilities do not cut so deeply today. And in the matter of return on invested capital could it not be lowered if perhaps Congress could see its way clear to allow some reasonable tax relief on corporate dividends?

The Select Committee recognizes that these are very complex issues. We also firmly believe that they will not go away if they are simply ignored. Today's electric utility customer is far too hard pressed to indefinitely accept the hallowed principal that the entire weight imposed on the economy by these judgmental fiats justly belongs exclusively on his shoulders. He is prepared to carry his fair share but his cry is, that the time has come, to equitably share some of these burdens.

Mr. Chairman, I shall try to come to a speedy close in this consideration of details by lumping management practises into one large bundle. Since the Select Committee has been misinterpreted by the press and even by our own Co-op management on this matter, I will choose my words as carefully as possible. Over the years the REA has developed a host of management guidelines covering just about everything of importance in managing a rural electric co-operative. Some of these guidelines address themselves to equity goals, the handling of capital credits, network expansion, system reliability, contracting policies and right on down to specifics like employee safety. We have suggested that many of these policies urgently need to be reviewed and updated as they apply to service areas like that of our Co-operative in 1980. In making this observation I want to emphasize that we are fully aware that on the whole these REA policies represent commonally accepted "good business practice" for rural utilities. Furthermore we do not intend any slur on the management of our own or similar Co-operatives. If our management does not perform satisfactorily we members of the Co-operative can and will handle that locally and not bother you gentlemen with the matter. We are referring to a much broader and more important problem. Many of our REA Co-operatives have become misnomers. They are no longer rural. Some have been overtaken by urban sprawl as in this very Washington area. Some like ours have been drastically altered by the massive population shift to the Sun Belt and the demographic make up of a typical Sun Belt service area. It appears virtually self evident to us that what may constitute good, even excellent, business practise for a typical, truly rural, co-operative may be quite inappropriate and burdensome for one that has become urban or exurban. The problem is further compounded when the demographic make up of many of our Sun Belt service areas is considered. A considerable number of these policies place a heavy drain on current revenues. They may be thoroughly appropriate for orderly rural development and service. Are they equally appropriate in the burden they place on the young and fixed income retirees who make up such a large portion of the members in many of our Sun Belt Co-operatives across this nation? Perhaps, but we submit that an affirmative answer is by no means self evident and that the questions deserve~~s~~ intensive study. Many of these policies are at the very core of the cost differential which was the origin of the Select Committee itself. Indeed, when considered carefully they pose fundamental questions such as those raised by our working group in the last section of its report. (See Attachement D.)

There are two final intems in this category that our committee plans to study carefully in the months ahead. To date we have only been able to determine that they urgently need attention. Both will probably eventually require federal regulatory and statutory action. One involves the distribution of low cost federal power to REA member Co-operatives under the South East Power Administraton, the so called SEPA power. The other is the alarming cost~~s~~ of implementing the mass of reporting regulations imposed on our Co-operatives. Very preliminary estimates put the cost of implementing new reporting requirements this year alone in our CO-operative at perhaps a quarter million dollars. Attachment I lists some of the things we will be looking at in this category. We would like to ~~urge~~ suggest, Mr. Chairman, that your committee may well want to take an urgent look at these matters as well. Certainly ~~angy~~ any hardships that may be imposed by possible inequities in alloting low cost federal power or by unnecessarily unnecissarily stringent reporting requirements should be promptly corrected. The electric consumer has enough woes to contend with already without adding unnecessary man-made ones to his burden.

In conclusion, Mr. Chairman, we of the Select Professional Committee sincerely believe that the time has come to fundamentally rethink the whole matter of electrical rates and service. A substantial number of the people of this nation simply cannot survive much longer under "business as usual" conditions. Especially hard hit are our younger citizens and those of us among the retired who are on fixed incomes. The problem we bring to you in these hearings is not a local vendetta but one of truly national dimensions which will require the very best efforts of all of us if we are to avoid a social problem whose dimensions we can only barely discern. Our examination of this matter demonstrates, we believe, that a great number of the problems which contribute to the overall problem of electrical energy supply, at as reasonable prices as possible, track back to regulatory and even statutory complications, impediments and confusion. It is this, Mr. Chairman, which has brought us to your door today. We ask, that in the interests of our nation, you, our elected representatives, assume your rightful role of leadership in framing a new order for the supply of electrical energy within the REA system. A new order which will make it possible for REA to continue its record of excellent service to the rural areas of our nation and also provide for those drastically altered circumstances which we find in rapidly expanding areas especially in the Sun Belt where many service areas are ~~today~~ no longer truly rural. Our constitution places in your hands the primary responsiblility for adapting our institutions to an ever changing world. We know, however, that even the wisest legislators cannot operate in a vacuum. Accordingly, here and now, on behalf of the over 16,000 citizens who first exercised their constitutional right to seek redress by approaching our representative, Congressman

Kelly, we wish to respectfully offer our area as a case study for a thorough examination of the problems I have touched on in this presentation. Such ahexamination will no doubt reveal other areas that require study. We would not presum to suggest who you should ask to do this study for you. We do, however, pledge ourselves and our talents to the service of whomever you may select. In order that such a study may have a chance of being tangibly productive we would suggest that you require whoever does the study for you to render a preliminary report within six months. We would also suggest that you require them to submit to you a final report within one year containing specific recommendations for regulatory and statutory changes that would help to equalize the burdens of providing an adequate electrical energy supply to consumers in areas similar to ours across this nation.

Thank you, Mr. Chairman, for providing this opportunity for the Select Committee to present its views. We are also very appreciative of the help our Congressman Richard Kelly has given us; his direct support and assistance has made it possible for this group to be here. Several of my colleagues on the committee are present here today with me. We will be pleased to try and answer any questions you or the other members may have. If we do not have the answers at this time we will endeavor to get them for you. And now, Mr. Chairman, may I interject this, I personally am proud to stand here and represent the Select Professional Committee on Electrical Utilities and Service. I have never worked with a more dedicated group of individuals, dedicated to the ideals and principles of democracy. They represent hundreds of years of service to North America since they first learned, at the age of 6, the pledge of allegiance to their flags. Thank you again Mr. Chairman.

THE FOLLOWING ATTACHMENTS ARE HELD IN THE SUBCOMMITTEE FILE:

Attachment A	Select Committee Resumes.
Attachment B	Letter Kelly to Feragen, dated 12/22/79.
Attachment C	Feragan reply to Kelly, dated 2/8/80.
Attachment D	Select Committee Working Group Report on material contained in Attachment C, dated 3/4/80.
Attachment E	Analysis Difference in Cost/1,000 KWH in residential rates, Florida Power and Withlacoochee 1977 - 1980.
Attachment F	Historical Review Florida Power and Withlacoochee residential rates and changes.
Attachment G	Estimates of monthly Load Factors Withlacoochee River Electric Co-operative made from information in Attachment C.
Attachment H	Monthly Billing Demand as a function of Load Factor and Monthly Energy Purchases.
Attachment I	Preliminary Estimate of new requirements placed on Withlacoochee Co-operative by Section 133 of Public Utility Regulatory Policies Act.
Attachment J	Why it Doesn't Pay to Conserve Energy.

Henry Thomas, General Manager
Coast Electric Power Association
Bay St. Louis, Mississippi 39520

Mr. Chairman:

My name is Henry Thomas. I am General Manager of Coast Electric Power Association, a member owned rural electric cooperative located in Bay St. Louis, Mississippi, with a current membership of 27,591.

Coast Electric serves in three counties, two of which border on the Gulf of Mexico. It presently serves rural and urban areas: farm accounts, light industry, weekend homes, retirement communities and numerous camps.

In addition to being manager of a changing rural electric system, I have served as a director and area vice president of the Mississippi Economic Council, a statewide organization devoted to improving all areas of our state; as past Chairman of the Resolutions Committee of the Mississippi Farmers Council, an organization devoted to improving rural and farm life in our state; as a member of five local Chambers of Commerce in cities along the Mississippi Gulf Coast. I serve and have active membership in many social and civic organizations, both in urban and rural areas. Also, I have served for several years on the National Rural Electric Cooperative Association's Resolutions Committee, both Regional and National, and have been personally involved in the development of resolutions which concern rural America, its citizens and their way of life.

I am presently serving as President of the Electric Power Associations of Mississippi, an organization representing over 200,000 member-owners in our state who reside primarily in rural areas.

As a result of these experiences, enhanced by being a native product of a rural area, I feel that these qualifications give me insight into the many problems faced by rural Americans; one of which is, Rising Electric Rates.

The factors affecting rising electric rates are many, and in most cases largely misunderstood. However, these factors are not unexplainable, and in my brief remarks I am hopeful that insight may be provided that will give greater understanding to the problems we share.

"FACTORS AFFECTING RISING ELECTRIC RATES IN RURAL AREAS"

The factors which affect the rising cost for electric subscribers in rural areas represent a combination of variables which are completely beyond the control of those who operate these systems.

Inflation, as you are well aware, has its impact upon each of us; however, in rural electrics it has been compounded by other characteristics each of which independently suffers from inflation. In order to condense and confine this presentation, I will attempt to present the cost effects on rates as a result of: 1) an urban to rural population movement creating rapid growth and large capital outlays, 2) density levels which tend to create much less revenue than those urban systems with high density levels, resulting in much higher ratios of investment per consumer, 3) escalating equipment costs, and the necessity of rural systems to purchase, operate and maintain unusual and specialized equipment which may not be needed by urban systems, 4) load factor characteristics of rural systems and their effects upon cost, and 5) the effect of the elements upon systems which are scattered over wide areas, which tend to require large amounts of new and unplanned investment dollars.

While there are other factors, we feel that these present an overall picture of what is happening in a changing rural environment and is reflected in the cost of service to the citizens of rural areas.

GROWTH For over 25 years electric rates in rural areas were usually less expensive than those in neighboring urban areas. However, in the late '60's and continuing into the '70's a reversal began to develop. Rural systems began to see unprecedented growth as a result of the urban to rural movement experienced throughout the country. As this movement gained, more and more rural electric systems found themselves building facilities to serve subdivisions and community services related to such for the first time in their history. During these periods of fast and extensive building; costs of materials, labor, equipment and money were reaching their highest levels. Therefore, electric systems built to accommodate this urban to rural movement were being accomplished at all time high investment costs.

In addition to the urban to rural move, another type consumer began to locate in rural areas. The summer home, week-end camp, or second home became affordable to more and more citizens as a result of relaxed and almost 100% financing for such purchases. Many rural electric systems experienced the problem of building expensive facilities to serve loads with sub-standard load factors.

The changing face of America's countryside with the advent of these factors, required large investments by rural electric systems. Of course, these investments could only be recaptured through rate structures. While growth is desired by all electric systems, a growth as rapid and of such magnitude, with load characteristics such as have occurred during the past few years, will definitely cause financial concern for the system. It is my belief that the fast growing electric system either rural or urban will be the one to experience financial pains in the short-term, but if it succeeds in overcoming them, will enjoy long term benefits.

DENSITY Rural Systems by their very nature must invest considerably more in facilities to serve a consumer than most urban systems. A typical rural system may have nine or less consumers per mile of line constructed, while a typical urban system will usually have forty or more customers per mile of line. The rural system will have more invested in equipment to serve a consumer than the typical urban system would have. This results in an imbalance of revenue as a ratio to investment.

Low density levels also create high expense areas in all consumer activity. It is very expensive to locate power failures due to long distances of lines. It is very expensive to maintain rights-of-way because most lines run through heavily wooded areas. It is expensive to read meters in rural areas where transportation must be used for almost each account; whereas, in urban areas transportation is not needed to read meters.

A rural system, with its low density, creates added expenses in each and every area of operation, while many areas of an urban system may decrease expenses.

The typical rural system must construct, operate and maintain more than 500 feet of service for every member served, while the typical urban system will usually build 90 feet of service or less for its customers. This clearly indicates that the rural system has five or more times the investment cost per consumer than the average urban system, five or more times the exposure, and five or more times the maintenance cost.

EQUIPMENT Most rural electric systems must invest in specialized equipment, which is unnecessary and not required in the operation of urban systems. Equipment for constructing and operating lines in marsh, swamp or mountainous areas adds to investment costs.

Additionally, due to long distances between consumers, all equipment must travel farther and in many cases on sub-standard roads to reach jobs. This tends to decrease the life of the equipment, even though the best maintenance programs may be utilized.

LOAD FACTORS Most rural systems experience lower load factors than those of the urban systems. This is primarily a result of the residential and farm load nature of the rural system, while many urban systems enjoy heavily industrialized areas, which enhance their load factors and decrease the investment cost to their residential customer.

Hopefully; and many trends do indicate that rural systems will experience some industrial growth, which should improve their load factors and in turn reduce costs.

ELEMENTS Rural electric systems, because of their locations, are subjected to many operational problems which do not occur on urban systems. Power failures on rural systems sometimes require traveling long distances to locate and repair problems, while urban systems, due to their concentrated area, do not share this problem.

Weather creates very extensive cost factors for rural systems. Most rural systems are scattered over a large geographical area, which creates a very high exposure to any and all weather related problems.

Systems such as the one I am associated with, which is typical, experience all of the above, and additionally, have exposure to severe lightning, prevailing winds, unstable soil conditions and seasonal hurricanes. These weather factors require unplanned replacement of older facilities, built at much cheaper investment cost, with high priced present day materials and labor.

In our opinion, most rural rates, when compared realistically to urban rates, are extremely low; when the same data for comparison is applied; and particularly, in considering the nature of serving a rural area. Rates of return for rural systems usually are much lower than those of urban systems. As a cooperative, profit motives do not exist and rates are based solely on cost of operation. We also believe that most people in rural areas with rural backgrounds understand our business, and that most misunderstandings occur from those consumers who have recently moved to newly developed rural areas or have advanced their standard of living to marginal levels. These misunderstandings usually are not ones based on fact, but are generated through frustation with a decreasing standard of living due to an inflated economy. The rural electric, being located locally and operated by people who are part of the community, is highly visible to the consumer and presents an easy target for him upon which to vent his frustrations.

While we rural electrics may not be able to compete rate-wise with some urban systems, we would challenge any to excel or equal the quality of service and the human involvement provided by the rural electric systems.

In conclusion, evidence clearly indicates that most rural areas cannot be served better, nor with less cost than now exists, and that in those rare instances of change in ownership to urban systems, rates have been increased rather than decreased.

As an example, I submit the following statistics of a typical rural system. It is not any different from any of hundreds of others. This eleven year review of revenue collected, cost of power, cost of power as a percent of revenue, and revenue increases less power cost, clearly illustrates that the systems serving rural areas have not increased cost of operations unrealistically, but rather have shown a remarkable ability to keep costs down. In this illustration of an eleven year period, cost for operation, debt retirement, taxes and all other costs have increased a bare 25%, while the Consumer Price Index has increased 107.6% during the same time period. Although the cost of electricity has increased tremendously, it is almost entirely due to prices of uncontrollable expense areas.

TYPICAL RURAL ELECTRIC SYSTEM COST COMPARISON CHART

YEAR	AVG. COST OF POWER/KWH	AVG. REVENUE PER KWH	REVENUE MINUS COST	COST OF POWER AS % OF REVENUE
1969	6.9	19.6	12.7	35%
1970	7.0	18.7	11.7	37%
1971	7.1	18.6	11.5	38%
1972	9.9	21.0	11.1	47%
1973	10.8	22.9	12.1	47%
1974	12.4	26.9	14.5	46%
1975	20.3	32.6	12.3	62%
1976	23.2	37.2	14.0	62%
1977	28.4	43.5	15.1	65%
1978	28.8	44.7	15.9	64%
1979	37.5	53.4	15.9	70%

NOTE: All cost figures are illustrated in mills.

We, too, are concerned about the rising cost of rates and their effects upon our consumers. Additionally, we are concerned about all cost effects upon rural areas and the end result of these effects upon all Americans.

Our entire purpose of existence is to assist and aid in the development of a better rural environment. Historically, we feel this committment has been carried forth and that the challenges of today will be resolved with the same determination as demonstrated in the past.

Withlacoochee River Electric Cooperative, Inc.

P. O. BOX 278
DADE CITY, FLORIDA 33525

June 19, 1980

The Honorable Ed Jones
House of Representatives
Washington, D. C. 20515

Dear Congressman Jones:

I regret that I was unable to appear at the Conservation and Credit Subcommittee hearing regarding "Factors Affecting Rates in Rural Areas" held on June 6 in Washington.

It is apparent to me, after reviewing the record of this hearing, that some testimony given was far from the facts as I know them. We believe it is extremely important that the Congressional Record contain the facts; and, with your permission, I would like to respond to some of the statements made in the same responsible manner that I would have had I been in attendance at the hearing.

Statement by Mr. Fife (Page 147): "It took 1,600 signatures, the names and addresses of 1,600 men and women."

Answer: In January, 1980, three months prior to the Annual Meeting, a Consumer Information Bulletin was mailed to all members of the Cooperative. This bulletin advised the membership of the date, time, place and purpose of the Annual Meeting. The membership was informed that two trustee districts were up for election at this meeting and that the bylaws provide that candidates may be nominated either by the Nominating Committee or by petition.

The Nominating Committee members and their residence locations were announced in this bulletin. The Nominating Committee was not contacted by a single member of the Cooperative concerning nominees. The bulletin further informed the membership that if anyone sought to become a candidate by petition it would require the signatures of at least 513 bona fide Cooperative members.

A copy of this Consumer Information Bulletin is attached for the Congressional Record.

After this bulletin was received by the membership, I was contacted by Herbert J. Stemmle, a member of the Select Professional Committee on Electrical Utilities and Services, who indicated he desired to become a candidate by petition. I advised him that the Cooperative would be happy to prepare petition forms for him and deliver them to his residence.

After checking the membership records, we discovered that Mr. Stemmle was not a member of the Cooperative--the membership on his account being a single membership in his wife's name. We proceeded to complete the petition forms and delivered them to him at his Brooksville address. We advised him that he was not a Cooperative member and requested that he go into our Brooksville office and have the membership on the account changed into his name so that there would not be a potential problem with his qualifying in the election process. We advised Mr. Stemmle that he should get at least 513 bona fide members to sign his petition and to please return it to the Cooperative at a reasonably early date. This way we could verify his candidacy and in the event there was a problem we would have ample time to resolve it prior to the qualifying deadline.

Statement by Mr. Fife (Page 160): "We tried to contact the management and officers of Withlacoochee. . . . I made at least 15 or 20 calls to those offices. They would not even call us back and they would not answer the phone for us. We got no cooperation whatsoever."

Answer: My first contact with Mr. Fife was at the Annual Meeting in April, 1980. During a frank and open conversation between the two of us, Mr. Fife advised me that he had never attempted to contact the management or Board of the Cooperative.

During the past several months, I have had contact with a few members of this consumer group and each time supplied them with any and all information they requested.

On each occasion that a complaint was registered with the Cooperative or a letter was written to a local newspaper, a personal contact was made to these individuals at their homes to try to supply satisfactory answers to whatever questions they might have.

Shortly after the Annual Meeting, I met with the entire Select Professional Committee in a constructive meeting and answered all questions they had for the Cooperative.

Early on, I met with Mr. Stemmle at least three times and provided the information he requested. On each occasion I advised that as General Manager of the Cooperative I would be happy to meet with the Committee at any location at anytime to answer questions or furnish information they might desire concerning the operation of the Cooperative. On June 17, at a Board Meeting of the Cooperative this was discussed; and the official minutes will reflect that Mr. Stemmle verified he relayed my offers on each occasion to the Committee of which Mr. Fife is Co-Chairman; and, for reasons unknown, they chose not to discuss their problems with the Cooperative.

Statement by Mr. Fife (Page 171): "We go to a member-management meeting and we are told that the average Withlacoochee resident consumer consumes 20 percent less energy than his Florida Power counterpart but we were also told that if we consumed more energy we could get it more reasonably. Does that make sense? In other words, everyone is advocating the use of less energy but management tells us that if we consume 20 percent more we will get it for less."

Answer: Withlacoochee River Electric Cooperative has not and will not advocate increased usage of electrical energy. Throughout this process this group has said they sought answers for the difference in rates. We simply made this statement in a straightforward and forthright manner in an attempt to give basic and simple reasons for the difference in rates. I am sure that anyone can understand that if our consumers use 20 percent less current than their counterparts in a neighboring utility it would create a rate differential.

Statement by Mr. Fife (Page 177): "When we elected this man to the trusteeship, it was the first time that this had been done in 39 years."

Answer: In 1972 the membership elected three new trustees who were candidates by petition. Two of the encumbent trustees were not renominated by the Nominating Committee. In 1973 one trustee who qualified by petition was elected. In 1975 we had two candidates for two trusteeships to qualify by petition and appear on the ballot. Both were defeated in reasonably close elections.

I believe these facts point out that it is not a difficult job to become a candidate for the Board nor to get elected if you are the most qualified candidate. During the above time frame, we have had both male and female candidates qualify by petition.

Additionally, the Nominating Committee is normally comprised of some of the best-known and most-respected citizens in the area. Their meetings are conducted by themselves with no guidelines. They have the option to nominate one candidate or as many as they see fit for each district.

In addition to Mr. Stemmle who was elected to the Board of Trustees at our recent Annual Meeting through the petition process, we have other existing Board members who were elected by the same petition process.

Question by Mr. Madigan (Page 153): "Do either of you two other gentlemen know how the hearing came about or who initiated the process?"

Answer by Mr. Fife (Page 153): "I do not know but I assume it was Withlacoochee under their territorial assignment that asked for it."

Answer: After extensive negotiations over a period of two years, Florida Power Corporation and Withlacoochee River Electric Cooperative reached a territorial agreement and jointly petitioned the Florida Public Service Commission for approval. The area involved had extensive intermingling and duplication of facilities.

The agreement involved the potential transfer of over 500 customers--245 of which were Florida Power Corporation's to be transferred to Withlacoochee River Electric Cooperative and 269 which were Cooperative members to be transferred to Florida Power Corporation. Each of these customers who were residing in the area were personally visited by a two-man team consisting of an employee from each utility. They explained to the consumer what was being proposed and advised them of the utilities' rates and service rules and regulations, as well as answered any questions they might have concerning the transfer. They were also advised there would be a public hearing which they could attend if they so desired. Mr. Friedlander was one of the persons personally contacted at his home and advised of the proposed transfer and differences in rates.

This agreement was proposed and presented to the Commission because both utilities felt it was in the public interest to have a territorial agreement. The intermingling of facilities posed a potential safety hazard to the general public, and the duplication of facilities was a financial burden to customers of both utilities. Therefore, the removal of duplicated or intermingled facilities would ultimately serve the best interest of members of the Cooperative and customers of Florida Power Corporation.

There is considerable testimony in the records regarding percentages of difference in rates--existing and proposed, none of which relate to the average customer bill. It is our best estimate that if the increases now pending before regulatory commissions are granted the rates of the two utilities involved will be reasonably close.

As pointed out in my testimony, there are some very unique differences in the customers served by the Cooperative; and utility rates are designed and approved based on the cost to serve the particular customers of that utility, not on what the rates of any other utility are.

We recently had a cost of service study made by an independent engineering firm, Southern Engineering Company of Georgia; and the study shows that the residential customers of the Cooperative, comprising the vast majority of our kilowatt-hour sales, are providing a very low 6.4 percent rate of return. If this particular group of customers were to be served by any investor-owned utility, the rate of return would be far in excess of 6.4 percent, thereby justifying higher rates. I am sure that our return of 6.4 percent on these members could be easily justified before any regulatory commission in the United States.

We hope this information is satisfactory and appreciate the opportunity to respond to some of the testimony that was given. Should you require any additional information from this Cooperative, please let us know.

Very truly yours,

Billy E. Brown

Billy E. Brown
General Manager

Withlacoochee River Electric Cooperative, Inc.

CONSUMER INFORMATION BULLETIN

JANUARY, 1980

ANNUAL MEETING OF THE MEMBERS

The 33rd Annual Meeting of the Membership of Withlacoochee River Electric Cooperative, Inc., will be held in the Dan Cannon Auditorium, Pasco County Fairgrounds, Dade City, Florida, on Wednesday, April 16, 1980.

The purpose of the meeting is to comply with the bylaws of the Cooperative, hear reports of the Cooperative officers, elect trustees for Districts 1 and 4 and transact such other business as may come before the meeting. Registration will begin at 10:00 a.m. and close at 1:30 p.m., at which time the business meeting will commence.

The official notice and registration form will be mailed to the members in April in accordance with bylaw requirements. In the meantime, you may mark your calendar and make plans to attend.

Although we hold a meeting each year, there are always a number of new members who are not familiar with the business affairs of an electric cooperative as well as other members who for one reason or another may not have had the opportunity to attend. We bid you welcome and invite your participation.

In order that you may be better informed, trustee District 1 is comprised of western Citrus County and is represented by Mr. Richard Strickland; while trustee District 4 comprises northcentral Pasco and eastern Hernando Counties and is represented by Mr. James E. Hines.

The bylaws provide that candidates may be nominated either by the Nominating Committee or by a petition signed by one percent of the Cooperative's membership as of December 31, 1979. The Nominating Committee has been appointed and is comprised as follows: District 1--Mr. Marvin H. Workman, Chassahowitzka; District 2--Mr. William J. Wakefield, Citrus Springs; District 3--Mr. William DeCoursey, Spring Hill; District 4--Mrs. Charles Schwend, Bayhead; District 5--Mr. Milton J. Sherman, Bayonet Point; District 6--Mr. Cleo B. Boyett, Wesley Chapel; and District 7--Mr. William H. Kemp, Kathleen.

If a member desires to become a candidate by petition, it requires the signature of at least 513 bona fide Cooperative members. The completed petition must be submitted to the office of the Cooperative by 5:00 p.m. March 14 to comply with the bylaws.

If you have any question as to which district you reside in or should you desire to become a candidate by petition, please contact your Cooperative office; and we will be happy to advise you of the district boundaries or assist you with any information you may need pertaining to a petition.

*****   *****   *****

MESSAGE FROM THE GENERAL MANAGER

We sincerely hope that you will attend the Annual Membership Meeting on April 16 and learn more about the business affairs of your Cooperative and what it is doing to plan and provide for your future needs.

As you are well aware, energy costs were extremely high during the summer of 1979. This was caused by a number of factors, but primarily due to the loss of the Crystal River nuclear unit and the replacement of that loss with oil-fired generation.

Several years ago we could foresee the problems of being dependent for power supply on a utility whose generation was predominantly fired by oil, and we began making long-range plans to provide a more reliable and efficient source of power for our members.

These plans and goals are rapidly becoming reality. As most of you know, through Seminole Electric Cooperative, we have an ownership share in the Crystal River nuclear unit. Seminole's two 620-megawatt, coal-fired units located in Putnam County are under construction and will supply the electrical requirements of nearly a million people in Florida. The cost of power produced from these units will be significantly less than that produced in plants that use oil as fuel.

Additionally, we are negotiating the purchase of a portion of a nuclear unit Florida Power and Light Company is constructing at St. Lucie on the east coast. We are looking at the feasibility of a similar purchase from a nuclear unit that Georgia Power is building in south Georgia. We are considering several joint ventures for construction of generating capacity with other utilities within Florida. All of this is part of an on-going program to insure that the member-owners of Withlacoochee River Electric Cooperative have an adequate and dependable supply of energy at a lesser cost than is available from any other source.

The management of Withlacoochee is proud of the Cooperative and the work that is being done to achieve our stated objectives and goals. Of course, there are a few who enjoy "second guessing" those of us who work diligently each day to not only provide for your present needs, but to insure that future requirements of our area are adequately planned and provided for.

People who capitalize on the misery of those caught up in the spiraling inflation are not constructive and do not offer anything to the members of the Cooperative but additional problems and expenses that will ultimately have to be paid by the rate payers. We are sure that you, too, recognize this.

Again, we hope you will plan to attend the Annual Membership Meeting. It is your opportunity to reflect on the Cooperative's operation as you see it. I am confident that, as responsible member-owners, you will have some ideas that will enable us to better serve you. Please come share your wisdom with us.

Very truly yours,

Billy E. Brown

Billy E. Brown
General Manager

***** ***** *****

BYLAWS

of

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.

(As amended in 1979)

ARTICLE I

Membership

Section 1. Requirements for Membership. Any person, firm, association, corporation or body politic or subdivision thereof may become a member in WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC., (hereinafter called the "Cooperative") by:

(a) filing a written application for membership therein;
(b) agreeing to purchase from the Cooperative electric energy as hereinafter specified;
(c) agreeing to comply with and be bound by the articles of incorporation and bylaws of the Cooperative and any rules and regulations adopted by the board of trustees; and
(d) paying the membership fee herein specified; provided, however, that no person, firm, association, corporation or body politic or subdivision thereof shall become a member unless and until he or it has been accepted for membership by the board of trustees or the members. No member may hold more than one membership in the Cooperative, and no membership in the Cooperative shall be transferable.

At each meeting of the members held subsequent to the expiration of a period of six months from the date of incorporation of the Cooperative, all applications received more than ninety days prior to such meeting and hich have not been accepted or which have been rejected by the board of trustees shall be submitted by the Secretary to such meeting; and, subject to compliance by the applicant with the requirements hereinabove set forth, such applications or any one or more of them may be accepted by vote of the members. The Secretary hall give each such applicant at least ten days' notice of the date of the members' meeting to which his pplication will be submitted, and such applicant shall be entitled to be present and heard at the meeting.

Section 2. Joint Membership. A husband and wife may apply for a joint membership and, subject to their ompliance with the requirements set forth in Section 1 of this Article, may be accepted for such membership. he term "member" as used in these bylaws shall be deemed to include a husband and wife holding a joint membership; and any provisions relating to the rights and liabilities of membership shall apply equally with respect o the holders of a membership. Without limiting the generality of the foregoing, the effect of the ereinafter specified actions by or in respect to the holders of a joint membership shall be as follows:

(a) The presence at the meeting of either or both shall be regarded as the presence of one member and shall have the effect of revoking a proxy executed by either or both and of constituting a joint waiver of notice of the meeting;
(b) The vote of either separately or both jointly shall constitute one joint vote;
(c) A waiver of notice signed by either or both shall constitute a joint waiver;
(d) Notice to either shall constitute notice to both;
(e) Expulsion of either shall terminate the joint membership;
(f) Withdrawal of either shall terminate the joint membership;
(g) Either but not both may be elected or appointed as an officer or trustee, provided that both meet the qualifications for such office.

Section 3. Conversion of Membership. (a) A membership may be converted to a joint membership upon the ritten request of the holder thereof and the agreement by such holder and his or her spouse to comply with e articles of incorporation, bylaws and rules and regulations adopted by the board of trustees.

(b) Upon the death of either spouse who is a party to the joint membership, such membership shall be held lely by the survivor.

Section 4. Membership and Service Connection Fees. The membership fee shall be $5.00, and the service nnection fee shall be that amount which the board of trustees shall from time to time set by resolution. on the payment of a membership fee and the service connection fee prescribed by the board of trustees for e type of service, a member shall be entitled to service connection. Any member whose service is terminated, one or more locations, shall be required to pay such fee as from time to time may be set by resolution of e board of trustees for the reconnection of service.

Section 5. Purchase of Electric Energy. Each member shall, as soon as electric energy shall be available, rchase from the Cooperative all electric energy used on the premises specified in his application for membership, and shall pay therefor monthly at rates which shall from time to time be fixed by the board of trustees; ovided, however, that the board of trustees may limit the amount of electric energy which the Cooperative shall be required to furnish to any one member. It is expressly understood that amounts paid for electric energy in excess of the cost of service are furnished by members as capital, and each member shall be credited with the capital so furnished as provided in these bylaws. Each member shall pay to the Cooperative such minimum amount per month regardless of the amount of electric energy consumed, as shall be fixed by the board of trustees from time to time. Each member shall also pay all amounts owed by him to the Cooperative as and when the same shall become due and payable.

Section 6. Termination of Membership. Any member may withdraw from membership upon compliance with such uniform terms and conditions as the board of trustees may prescribe. The board of trustees of the Cooperative may, by the affirmative vote of not less than two-thirds of all the trustees, expel any member who shall have refused or failed to comply with any of the provisions of the articles of incorporation, bylaws or rules or regulations adopted by the board of trustees, but only if such member shall have been given written notice by the Secretary of the Cooperative that such refusal or failure makes him liable to expulsion and such refusal or failure shall have continued for at least ten days after such notice was given. Any expelled member may be reinstated by vote of the board of trustees or by vote of the members at any annual or special meeting.

Upon the withdrawal, death, cessation of existence or expulsion of a member, the membership of such member shall thereupon terminate; however, termination of membership in any manner shall not release a member or his estate from any debts due the Cooperative.

ARTICLE II

Rights and Liabilities of Members

Section 1. Property Interest of Members. Upon dissolution, after (a) all debts and liabilities of the Cooperative shall have been paid, and (b) all capital furnished through patronage shall have been retired as provided in these bylaws, the remaining property and assets of the Cooperative shall be distributed among the members and former members in the proportion which the aggregate patronage of each bears to the total patronage of all members during the seven years next preceding the date of the filing of the certificate of dissolution, or, if the Cooperative shall not have been in existence for such period, during the period of its existence.

Section 2. Non-Liability for Debts of the Cooperative. The private property of the members shall be exempt from execution or other liability for the debts of the Cooperative, and no member shall be individually liable or responsible for any debts or liabilities of the Cooperative.

ARTICLE III

Meeting of Members

Section 1. Annual Meeting. The annual meeting of the members shall be held in April of each year, beginning in April, 1972, the date being set by the board of trustees, at such place in the counties of Pasco, Hernando, or Citrus, State of Florida, as the board of trustees may determine, electing trustees, passing upon reports for the previous fiscal year and transacting such other business as may come before the meeting. It shall be the responsibility of the board of trustees to make adequate plans and preparations for the annual meeting. If the day fixed for the annual meeting shall fall on a Sunday or legal holiday, such meeting shall be held on the next succeeding business day. Failure to hold the annual meeting at the designated time shall not work a forfeiture or dissolution of the Cooperative.

Section 2. Special Meeting. Special meetings of the members may be called by resolution of the board of trustees, or upon a written request signed by any three trustees, by the President, or by ten per centum or more of all the members, and it shall thereupon be the duty of the Secretary to cause notice of such meeting to be given as hereinafter provided. Special meetings of the members may be held at any place within the County of Pasco, State of Florida, specified in the notice of the special meeting.

Section 3. Notice of Members' Meetings. Written or printed notice stating the place, day and hour of the meeting and, in case of a special meeting or an annual meeting at which business other than that listed in Section 7 of this Article is to be transacted, the purpose or purposes for which the meeting is called shall be delivered not less than ten days nor more than twenty-five days before the date of the meeting, either personally or by mail, by or at the direction of the Secretary, or upon a default in duty by the Secretary, by the persons calling the meeting, to each member. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, addressed to the member at his address as it appears on the records of the Cooperative, with postage thereon prepaid. The failure of any member to receive notice of an annual or special meeting of the members shall not invalidate any action which may be taken by the members at any such meeting.

Section 4. Quorum. Three (3) per cent of all members, present in person, shall constitute a quorum for the transaction of business at all meetings of the members. If less than a quorum is present at any meeting, a majority of those present in person may adjourn the meeting from time to time without further notice.

Section 5. Voting. Each member shall be entitled to only one vote. All questions shall be decided by a vote of the majority of the members voting thereon in person, except as otherwise provided by law, the articles of incorporation or these bylaws.

Section 6. Presence at Meetings. A member must be personally present in order to register his vote at any meeting. The purpose of this amendment is to eliminate proxy voting at membership meetings and require that a member be personally present before he can vote on any matter which might come before such meetings.

Section 7. Order of Business. The order of business at the annual meeting of the members and, so far as possible, at all other meetings of the members shall be essentially as follows:

1. Report as to which members are present in person, in order to determine the existence of a quorum.
2. Reading of the notice of the meeting and proof of the due publication or mailing thereof, or the waiver or waivers of notice of the meeting, as the case may be.
3. Reading of unapproved minutes of previous meetings of the members and the taking of necessary action thereon.
4. Presentation and consideration of reports of officers, trustees and committees.
5. Election of trustees.
6. Unfinished business.
7. New business.
8. Adjournment.

ARTICLE IV

Trustees

Section 1. General Powers. The business and affairs of the Cooperative shall be managed by a board of seven trustees which shall exercise all of the powers of the Cooperative except such as are by law, the articles of incorporation or these bylaws conferred upon or reserved to the members.

Section 2. Qualifications and Tenures. The persons named as trustees in the articles of incorporation shall compose the board of trustees until the first annual meeting, or until their successors shall have been elected and shall have qualified. If the election of trustees shall not be held on the day designated herein for the annual meeting, or at any adjournment thereof, the board of trustees shall cause the election to be held at a special meeting of the members as soon thereafter as conveniently may be.

Trustees shall be elected by ballot at each annual meeting of the members in the manner following:

At the annual meeting for the year 1966, the trustees shall be divided into three classes or groups as follows: Group 1 to consist of three trustees; Group 2 to consist of two trustees; and Group 3 to consist of two trustees, respectively. Trustees for Group 1 shall be elected by ballot at the annual meeting of the Cooperative for the year 1966 and shall hold office for a term of three years. Group 2 will be elected by ballot at the annual meeting of the Cooperative for the year 1967. The term of trustees of Group 2 shall then be three years from the date of their election. The term of office of the trustees in Group 3 shall be extended to, and including, the annual meeting for 1968; and the trustees for Group 3 shall be elected at the annual meeting of 1968. The trustees elected for Group 3 shall hold office for three years after their election. The term of office of all trustees shall expire upon the date of the annual meeting held three years after their election. The board of trustees shall designate the trustees who shall comprise each of the three groups.

The term of all trustees elected at the annual meeting of 1966 and at subsequent annual meetings shall extend to and expire upon the third subsequent annual meeting provided, however, that all trustees shall hold office until their successors shall have been elected and shall have qualified.

No person shall be eligible to become or remain a trustee or to hold any position of trust in the Cooperative who:

(a) is not a member or bona fide resident within the district he is seeking to represent for one year prior to the first day of the month designated in these bylaws as the month of the annual meeting of the members; or

(b) is in any way employed by or financially interested in a competing enterprise or a business selling electric energy or supplies to the Cooperative, or a business primarily engaged in selling electrical or plumbing appliances, fixtures or supplies to the members of the Cooperative; or

(c) is the incumbent of or a candidate for an elective public office in connection with which a salary or compensation in excess of one hundred dollars per annum is paid.

Upon establishment of the fact that a trustee is holding office in violation of any of the foregoing provisions, it shall immediately become incumbent upon the board of trustees to remove such trustee from office.

Nothing contained in this section shall effect in any manner whatsoever the validity of any action taken at any meeting of the board of trustees.

Section 3. Nominations. It shall be the duty of the board of trustees to appoint, not less than sixty days before the date of a meeting of the members at which the trustees are to be elected, a committee on nominations consisting of not less than five nor more than eleven members, who shall be selected from different sections of the service area so as to insure equitable representation. No member of the board of trustees may serve on such committee. The committee, keeping in mind the principle of geographical representation, shall prepare and post at the principal office of the Cooperative, at least thirty days before the meeting, a list of nominations for trustees, but any group of members constituting not less than one percent of the membership as of December 31 of the preceding year, by acting together, may make other nominations by petition not less than thirty days prior to the meeting; and the Secretary shall post such nominations at the same place where the list of nominations made by committee is posted. The Secretary shall mail with the notice of the meeting, or separately, a statement of the candidates, specifying separately the nominations made by the committee on nominations and also the nominations made by petition, if any. Nominations for trustee shall not be made in any other manner than herein specified.

Section 4. Removal of Trustees by Members. Any member may bring charges against a trustee by filing such charges in writing with the Secretary, together with a petition signed by at least ten per centum of the members and request the removal of such trustee by reason thereof. The trustee against whom such charges have been brought shall be informed in writing of the charges at least five days prior to the meeting at which the charges are to be considered and shall have an opportunity at the meeting to be heard in person or by counsel, and to present evidence in respect of the charges; and the person or persons bringing the charges against him shall have the same opportunity. The question of the removal of such trustee shall be considered and voted upon at the next regular or special meeting of the members and any vacancy created by such removal may be filled by vote of the members at such meeting without compliance with the foregoing provisions with respect to nominations.

Section 5. Vacancies. Subject to the provisions of these bylaws with respect to the filling of vacancies caused by the removal of trustees by the members, a vacancy occurring in the board of trustees shall be filled by the affirmative vote of a majority of the remaining trustees for the unexpired portion of the term of the trustee in respect of whom the vacancy occurs.

Section 6. Compensation. The trustees shall not receive any salary for their services; but by resolution of the board of trustees, a fixed sum and the expense of attendance, if any, may be allowed for attendance at each meeting of the board of trustees and for the performance of other Cooperative business provided such business has the prior approval of the board of trustees. No trustee shall receive compensation for serving the Cooperative in any other capacity, nor shall any close relative of a trustee receive compensation for serving the Cooperative, unless the payment of compensation shall be specifically authorized by the vote of the members or the service by such trustee or close relative shall have been certified by the board of trustees as an emergency.

Section 7. Districts. The trustees are hereby authorized by resolution to divide the entire area served by the Cooperative into as many geographical districts as there are trustees. Upon the adoption of such resolution creating said geographical districts, then all candidates for trustee shall be nominated from the geographical district in which he resides or accepts service from the Cooperative. Such districts may be amended, modified or changed from time to time by the trustees, provided, however, that no resolution shall be adopted creating, changing or modifying such districts within 90 days prior to the date of any annual meeting.

ARTICLE V

Meetings of Trustees

Section 1. Regular Meetings. A regular meeting of the board of trustees shall be held without notice other than this bylaw immediately after, and at the same place as, the annual meeting of the members. A regular meeting of the board of trustees shall also be held monthly at such time and place in any county in Florida in which the Cooperative has members at such specific time and place as the board of trustees may provide by resolution. Such regular monthly meetings may be held without notice other than such resolution fixing a time and place thereof.

Section 2. Special Meetings. Special meetings of the board of trustees may be called by the President or by any three trustees, and it shall be thereupon the duty of the Secretary to cause notice of such meeting to be given as hereinafter provided. The President or the trustees calling the meeting shall fix the time and the place, which shall be in any county in Florida in which the Cooperative has members, for the holding of such meeting.

Section 3. Notice of Trustees' Meeting. Written notice of the time, place and purpose of any special meeting of the board of trustees shall be delivered not less than five days previous thereto, either personally or by mail, by or at the direction of the Secretary, or upon a default in duty by the Secretary, by the

President or the trustees calling the meeting to each trustee. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail addressed to the trustee at his address as it appears on the records of the Cooperative, with postage thereon prepaid.

Section 4. Quorum. A majority of the board of trustees shall constitute a quorum, provided, that if less than such majority of the trustees is present at said meeting, a majority of the trustees present may adjourn the meeting from time to time; and provided further that the Secretary shall notify any absent trustees of the time and place of such adjourned meeting. The act of the majority of the trustees present at a meeting at which a quorum is present shall be the act of the board of trustees.

ARTICLE VI

Officers

Section 1. Number. The officers of the Cooperative shall be a President, Vice-President, Secretary and Treasurer, and such other officers as may, from time to time, be determined by the board of trustees. The offices of Secretary and Treasurer may be held by the same person.

Section 2. Election and Term of Office. The officers shall be elected by ballot, annually by and from the board of trustees at the meeting of the board of trustees held directly after the annual meeting of the members. If the election of officers shall not be held at such meeting, such election shall be held as soon thereafter as conveniently may be. Each officer shall hold office until the first meeting of the board of trustees following the next succeeding annual meeting of the members or until his successor shall have been elected and shall have qualified. A vacancy in any office shall be filled by the board of trustees for the unexpired portion of the term.

Section 3. Removal of Officers and Agents by Trustees. Any officer or agent elected or appointed by the board of trustees may be removed by the board of trustees whenever in its judgment the best interests of the Cooperative will be served thereby. In addition, any member of the Cooperative may bring charges against an officer by filing such charges in writing with the Secretary, together with a petition signed by ten per centum of the members, and request the removal of the particular officer by reason thereof. The officer against whom such charges have been brought shall be informed in writing of the charges at least five days prior to the meeting at which the charges are to be considered and shall have an opportunity at the meeting to be heard in person or by counsel and to present evidence in respect of the charges; and the person or persons bringing the charges against him shall have the same opportunity. The question of the removal of such officer shall be considered and voted upon at the next regular or special meeting of the members.

Section 4. President. The President shall:

(a) be the principal executive officer of the Cooperative and unless otherwise determined by the members of the board of trustees shall preside at all meetings of the members and the board of trustees;
(b) sign, with the Secretary, any deeds, mortgages, deeds of trust, notes, bonds, contracts, or other instruments authorized by the board of trustees to be executed, except in cases in which the signing and execution thereof shall be expressly delegated by the board of trustees or by these bylaws to some other officer or agent of the Cooperative, or shall be required by law to be otherwise signed or executed; and
(c) in general perform all duties incident to the office of President and such other duties as may be perscribed by the board of trustees from time to time.

Section 5. Vice-President. In the absence of the President, or in the event of his inability or refusal to act, the Vice-President shall perform the duties of the President, and when so acting, shall have all the powers of and be subject to all the restrictions upon the President. The Vice-President shall also perform such other duties as from time to time may be assigned to him by the board of trustees.

Section 6. Secretary. The Secretary shall:

(a) keep the minutes of the meeting of the members and of the board of trustees in one or more books provided for this purpose;
(b) see that all notices are duly given in accordance with these bylaws or as required by law;
(c) be custodian of the corporate records and of the seal of the Cooperative and affix the seal of the Cooperative to all documents, the execution of which on behalf of the Cooperative under its seal is duly authorized in accordance with the provisions of these bylaws;
(d) keep a register of the names and post office addresses of all members;
(e) have general charge of the books of the Cooperative in which a record of the member is kept;
(f) keep on file at all times a complete copy of the articles of incorporation and bylaws of the Cooperative containing all amendments thereto, which copy shall always be open to the inspection of any member, and at the expense of the Cooperative, forward a copy of the bylaws and of all amendments thereto to each member; and
(g) in general perform all duties incident to the office of Secretary and such other duties as from time to time may be assigned to him by the board of trustees.

Section 7. Treasurer. The Treasurer shall:

(a) have charge and custody of and be responsible for all funds and securities of the Cooperative;
(b) be responsible for the receipt of and issuance of receipts for moneys due and payable to the Cooperative from any source whatsoever, and for the deposit of all such moneys in the name of the Cooperative in such bank or banks as shall be selected in accordance with the provisions of these bylaws; and
(c) in general perform all the duties incident to the office of Treasurer and such other duties as from time to time may be assigned to him by the board of trustees.

Section 8. Manager. The board of trustees may appoint a Manager who may be, but who shall not be required to be, a member of the Cooperative. The Manager shall perform such duties and shall exercise such authority as the board of trustees may from time to time vest in him.

Section 9. Bonds of Officers. The Treasurer and any other officer or agent of the Cooperative charged with responsibility for the custody of any of its funds or property shall give bond in such sum and with such surety as the board of trustees shall determine. The board of trustees in its discretion may also require any other officer, agent or employee of the Cooperative to give bond in such amount and with such surety as it shall determine.

Section 10. Compensation. The powers, duties and compensation of any officers, agents and employees shall be fixed by the board of trustees, subject to the provisions of these bylaws with respect to compensation for trustees and close relatives of trustees.

Section 11. Reports. The officers of the Cooperative shall submit at each annual meeting of the members reports covering the business of the Cooperative for the previous fiscal year. Such reports shall set forth the condition of the Cooperative at the close of such fiscal year.

ARTICLE VII

Non-Profit Operation

Section 1. Interest or Dividends on Capital Prohibited. The Cooperative shall at all times be operated on a cooperative non-profit basis for the mutual benefit of its patrons. No interest or dividends shall be paid or payable by the Cooperative on any capital furnished by its patrons.

Section 2. Patronage Capital in Connection with Furnishing Electric Energy. In the furnishing of electric energy the Cooperative's operations shall be so conducted that all patrons, members and non-members alike will through their patronage furnish capital for the Cooperative. In order to induce patronage and to assure that the Cooperative will operate on a non-profit basis, the Cooperative is obligated to account on a patronage basis to all its patrons, members and non-members alike, for all amounts received and receivable from the furnishing of electric energy in excess of operating costs and expenses properly chargeable against the furnishing of electric energy. All such amounts in excess of operating costs and expenses at the moment of receipt by the Cooperative are received with the understanding that they are furnished by the patrons, members and non-members alike, as capital. The Cooperative is obligated to pay by credits to a capital account for each patron all such amounts in excess of operating costs and expenses. The books and records of the Cooperative shall be set up and kept in such a manner that at the end of each fiscal year the amount of capital, if any, so furnished by each patron is clearly reflected and credited in an appropriate record to the capital account of each patron, and the Cooperative shall within a reasonable time after the close of the fiscal year notify each patron of the amount of capital so credited to his account. All such amounts credited to the capital account of any patron shall have the same status as though they had been paid to the patron in cash in pursuance of a legal obligation to do so and the patron had then furnished the Cooperative corresponding amounts for capital.

In the event of dissolution or liquidation of the Cooperative, after all outstanding indebtedness of the Cooperative shall have been paid, outstanding capital credits shall be retired without priority on a pro rata basis before any payments are made on account of property rights of members. If at any time prior to dissolution or liquidation, the board of trustees shall determine that the financial condition of the Cooperative will not be impaired thereby, the capital then credited to patrons' accounts may be retired in full or in part. Any such retirements of patrons' capital shall be made as determined and directed by the board of trustees. In no event, however, may any such capital be retired unless, after the proposed retirement, the liquid assets of the Cooperative after deducting therefrom the total current liabilities of the Cooperative will equal at least 40 percent of the reserve for depreciation applicable to properties of the Cooperative in accordance with good accounting practice or equal the sum of interest and principal payments due on outstanding obligations in a twenty-four month period in which maximum interest and principal payments become due and payable according to the terms of notes and other obligations then outstanding, whichever is larger.

Capital credited to the account of each patron shall be assignable only on books of the Cooperative pursuant to written instruction from the assignor and only to successors in interest or successors in occupancy in all or a part of such patron's premises served by the Cooperative unless the board of trustees, acting under policies of general application, shall determine otherwise. In the event that a non-member patron shall elect to become a member of the Cooperative, the capital credited to the account of such non-member patron may be applied by the Cooperative toward the payment of a membership fee on behalf of such non-member patron.

Notwithstanding any other provision of these bylaws, the board of trustees, at its discretion, shall have the power at any time upon the death of any patron, if the legal representatives of his estate shall request in writing that the capital credited to any such patron be retired prior to the time such capital would otherwise be returned under the provisions of these laws, to retire capital credited to any such patron immediately upon such terms and conditions as the board of trustees, acting under policies of general application, and the legal representatives of such patron's estate shall agree upon; provided, however, that the financial condition of the Cooperative will not be impaired thereby.

The patrons of the Cooperative, by dealing with the Cooperative, acknowledge that the terms and provisions of the articles of incorporation and bylaws shall constitute and be a contract between the Cooperative and each patron, and both the Cooperative and the patrons are bound by such contract, as fully as though each patron had individually signed a separate instrument containing such terms and provisions. The provisions of this article of the bylaws shall be called to the attention of each patron of the Cooperative by posting in a conspicuous place in the Cooperative's office.

Section 3. Patronage Refunds in Connection with Furnishing Other Services. In the event that the Cooperative should engage in the business of furnishing goods or services other than electric energy, all amounts received and receivable therefrom which are in excess of costs and expenses properly chargeable against the furnishing of such goods or services shall, insofar as permitted by law, be prorated annually on a patronage basis and returned to those patrons, members, and non-members alike, from whom such amounts were obtained.

Section 4. Assignment of Gift by Failure to Claim. Notwithstanding any other provision of the bylaws, if any patron or former patron fails to claim any cash retirement of capital credits or other payment from the Cooperative within three years after payment of the same has been made available to him by notice or check mailed to him at his last address furnished by him to the Cooperative, such failure shall be and constitutes an irrevocable assignment and gift by such patron of such capital credit or other payment to the Cooperative. Failure to claim any such payment within the meaning of this section shall include the failure by such patron or such former patron to cash any check mailed to him by the Cooperative. The assignment and gift provided for under this section shall become effective only upon the expiration of three years from the date when such payment was made available to such patron or former patron without claim therefor and only after the further expiration of sixty days following the giving of a notice by mail or publication that unless such payment is claimed within said sixty-day period, such gift to the Cooperative shall become effective. The notice by mail herein provided, if given, shall be one mailed by the Cooperative to such patron or former patron at the last known address. If notice by publication is given, such publication shall be one insertion in a newspaper circulated in the service area of the Cooperative, which may be the cooperative newsletter. The sixty-day period following the giving of such notice, either by mail or publication, shall be deemed to terminate sixty days after the mailing or publication of such notice.

Section 5. Application of Patronage Capital to Deficit. Should the Cooperative sustain an operating loss for any fiscal year, patronage capital of members of the Cooperative shall be applied to such operating loss on a pro rata basis determined by the total amount of patronage capital credited to the account of each member; and in the event the total patronage capital is insufficient to make up such operating loss, future capital credits may be applied on the same basis to the retirement of such loss.

ARTICLE VIII

Disposition of Property

The Cooperative may not sell, mortgage, lease or otherwise dispose of or encumber all or any substantial portion of its property unless such sale, mortgage, lease or other disposition or encumbrance is authorized at a duly held meeting of the members thereof by the affirmative vote of not less than two-thirds of all of the members of the Cooperative, and unless the notice of such proposed sale, mortgage, lease or other disposition or encumbrance shall have been contained in the notice of the meeting; provided, however, that notwithstanding anything herein contained, or any other provisions of law, the board of trustees of a Cooperative, without authorization by the members thereof, shall have full power and authority to authorize the execution and delivery of a mortgage or mortgages or deed or deeds of trust upon, or the pledging or encumbering of, any or all of the property, assets, rights, privileges, licenses, franchises and permits of the Cooperative, whether acquired or to be acquired, and wherever situated, as well as the revenues and income therefrom, all upon such terms and conditions as the board of trustees shall determine, to secure any indebtedness of the Cooperative to the United States or any instrumentality or agency thereof, or to secure any indebtedness of the Cooperative to any bank, financial institution, corporation or person lending money or credit to such Cooperative.

ARTICLE IX

Seal

The corporate seal of the Cooperative shall be in the form of a circle and shall have inscribed thereon the name of the Cooperative and the words "Corporate Seal, Florida."

ARTICLE X

Financial Transactions

Section 1. Contracts. Except as otherwise provided in these bylaws, the board of trustees may authorize any officer or officers, agent or agents, employee or employees, to enter into any contract or execute and deliver any instruments in the name and on behalf of the Cooperative, and such authority may be general or confined to specific instances.

Section 2. Checks, Drafts, Etc. Except as otherwise provided by law or in these bylaws, all checks, drafts, or other orders for the payment of money, and all notes, bonds, or other evidences of indebtedness issued in the name of the Cooperative shall be signed by such officer, officers, agent or agents, employee or employees, of the Cooperative and in such manner as shall from time to time be determined by resolution of the board of trustees.

Section 3. Deposits. All funds of the Cooperative shall be deposited from time to time to the credit of the Cooperative in such bank or banks as the board of trustees may select.

Section 4. Change in Rates. Written notice shall be given to the Administrator of the Rural Electrification Administration of the United States of America not less than ninety days prior to the date upon which any proposed change in the rates charged by the Cooperative for electric energy becomes effective.

Section 5. Fiscal Year. The fiscal year of the Cooperative shall begin on the first day of January of each year and end on the thirty-first day of December of the same year.

ARTICLE XI

Miscellaneous

Section 1. Membership in Other Organizations. The Cooperative shall not become a member of any other organization without an affirmative vote of the members at a meeting called as provided in these bylaws, and the notice of said meeting shall specify that action is to be taken upon such proposed membership as an item of business, provided, however, that the board of trustees shall have full power and authority on behalf of the Cooperative to purchase stock in or to become a member of any corporation or cooperative organization on a non-profit basis for the purpose of engaging in rural electrification.

Section 2. Waiver of Notice. Any member or trustee may waive in writing any notice of a meeting required to be given by these bylaws. The attendance of a member or trustee at any meeting shall constitute a waiver of notice of such meeting by such member or trustee, except in case a member or trustee shall attend a meeting for the express purpose of objecting to the transaction of any business because the meeting shall not have been lawfully called or convened.

Section 3. Rules and Regulations. The board of trustees shall have power to make and adopt such rules and regulations, not inconsistent with law, the articles of incorporation or these bylaws, as it may deem advisable for the management, administration and regulation of the business and affairs of the Cooperative.

Section 4. Accounting System and Reports. The board of trustees shall cause to be established and maintained a complete accounting system which shall conform so long as the Cooperative is indebted to the Government or any agency or instrumentality thereof to such accounting system as may from time to time be designated by the Administrator of the Rural Electrification Administration of United States of America. All accounts of the Cooperative shall be examined by a committee of the trustees appointed by the board of trustees at least four times a year at regular meetings of the board of trustees. The board of trustees shall also after the close of each fiscal year cause to be made a full and complete audit of the accounts, books and financial condition of the Cooperative as of the end of such fiscal year. Such audit reports shall be submitted to the members at the annual meeting next following the close of such fiscal year.

ARTICLE XII

Amendments

These bylaws may be altered, amended or repealed by the members at any regular or special meeting, provided the notice of such meeting shall have contained a copy of the proposed alteration, amendment or repeal.

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.
DADE CITY, FLORIDA

STATEMENT OF NONDISCRIMINATION

Withlacoochee River Electric Cooperative, Inc., has filed with the Federal Government a Compliance Assurance in which it assures the Rural Electrification Administration that it will comply fully with all requirements of Title VI of the Civil Rights Act of 1964 and the Rules and Regulations of the Department of Agriculture issued thereunder, to the end that no person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the conduct of its program and the operation of its facilities. Under this Assurance, this organization is committed not to discriminate against any person on the ground of race, color or national origin in its policies and practices relating to applications for service or any other policies and practices relating to treatment of beneficiaries and participants including rates, conditions and extension of service, use of any of its facilities, attendance at and participation in any meetings of beneficiaries and participants or the exercise of any rights of such beneficiaries and participants in the conduct of the operations of this organization.

Any person who believes himself, or any specific class of individuals, to be subjected by this organization to discrimination prohibited by Title VI of the Act and the Rules and Regulations issued thereunder may, by himself or a representative, file with the Secretary of Agriculture, Washington, D. C. 20250, or the Rural Electrification Administration, Washington, D. C. 20250, or this organization, or all, a written complaint. Such complaint must be filed not later than 180 days after the alleged discrimination, or by such later date to which the Secretary of Agriculture or the Rural Electrification Administration extends the time for filing. Identity of complainants will be kept confidential except to the extent necessary to carry out the purposes of the Rules and Regulations.

STATEMENT

by

Billy E. Brown, General Manager
Withlacoochee River Electric Cooperative, Inc.
Dade City, Florida

Withlacoochee River Electric Cooperative is a distribution cooperative headquartered in Dade City, Florida. The principal areas served are rural Pasco, Hernando, and Citrus Counties, with a few services in adjacent Polk and Sumter Counties. During the past decade, this geographical area, which is located just north of the cities of Tampa and St. Petersburg, has had the highest percentage of growth within the state of Florida.

During 1979 the Cooperative added nearly 6,600 new services, bringing the total services in place to over 65,000 at December 31. This represents electric service to approximately 175,000 people in west-central Florida. For 1980 we have budgeted approximately 7,000 more new services which is indicative of the continued migration of people to this area.

The investment in the new facilities required to serve these new consumers is substantial, and the cost on a "per service" basis has increased dramatically in the last ten years.

We believe the operating costs associated with this investment, the unprecedented increase in the cost of power, and the unique configuration of our consumer base have combined in such a manner as to make it appear that our members are adversely affected--especially when compared to our neighboring investor-owned utility.

The rapid growth is further evident when one looks at the "Total Utility Plant in Service" which during the past ten years has increased from $13.4 million at December 31, 1969, to $70.6 million at December 31, 1979; and services in place grew from 17,538 to 65,478 during the same period. The increase in the average cost of providing an electric service on this system has been significant as shown in the following tabulation:

1970	$921	1976	$1,109
1972	777	1978	1,339
1974	927	1979	1,153

The fluctuation in the overall upward trend represent periodic investments in transmission, substation, and major feeder facilities.

Certainly a major contributor to the increased cost of providing an electric service has been the marked increase in the cost of the pole line material component which is demonstrated in the following randomly-selected items:

	1970	1979
Fused Cutout	$ 25.75	$ 42.17
Post Insulator	9.08	22.36
Pole, 40/4	40.32	103.12
Wire, #4 Bare Copper	1.09/lb.	1.40/lb.
Wire, #2 Aluminum Triplex	.18/ft.	.28/ft.
Transformer, 25-KVA	268.00	451.90

While these costs contribute to the cost of providing facilities and the expense of operating them, the item most significantly affecting the cost of electric energy to the consumer has been the drastic increase in the cost of purchased power.

Much of this increase is attributable to the sharp increase in the price of foreign oil which impacted severely on Florida Power Corporation because of their heavy reliance on oil to fuel their steam generators. This has been somewhat relieved through the conversion of some units from oil to coal and will be further alleviated through the efforts of the cooperatives in Florida as they are presently constructing new coal-fired units to both help control costs and meet national energy objectives.

In any event, for Withlacoochee River Electric the cost of purchased power has increased from 8.61 mills per kilowatt-hour in 1969 to 38.49 mills per kilowatt-hour in 1979. The following table displays the continued upward trend and shows the impact of OPEC price increases:

	Mills/kWh		Mills/kWh
1969	8.61	1975	24.40
1970	8.97	1976	25.90
1971	9.50	1977	31.77
1972	10.45	1978	34.93
1973	12.87	1979	38.49
1974	22.09	1980 Est.	45.00

The Federal Energy Regulatory Commission approved an interim wholesale rate increase effective April 29, 1980, for Florida Power Corporation which will push our 1980 estimated costs to approximately 45 mills per kilowatt-hour.

This substantial increase in price and the number of new consumers combine to raise the cost of purchased power so as to consume an ever larger percentage of revenue as the following data indicates:

1970	39.8%	1976	61.4%
1971	42.8%	1977	65.6%
1972	44.5%	1978	67.3%
1973	54.3%	1979	68.6%
1974	59.2%	1980 Est.	72.5%
1975	59.9%		

While cost increases have raised the cost of energy to all consumers, there are conditions unique to this Cooperative--such as the overall percentage of kilowatt-hours sold to residential consumers, the varying number of kilowatt-hours used by those residential consumers, and the percentage of those consumers who happen to be retirees--which adversely distorts the comparisons made to other utilities.

For Withlacoochee River Electric, in 1979 the kilowatt-hours sold to residential customers represented 76.9 percent of the total kilowatt-hours sold; whereas for Florida Power Corporation the figure was only 39.4 percent and for Tampa Electric Company, 32.8 percent. This comparison is significant in that it demonstrates the inability of the Cooperative to subsidize residential customers with revenue from industrial customers as other utilities have been able to do.

The rate-making standards established by the Public Utility Regulatory Policies Act of 1978 will eliminate such subsidies in the near future as rates based on full cost of service are established. Even if this ability to subsidize another rate classification had not been eliminated, industrial development might not be so beneficial in that a significant portion of the retired population moved to our area because of the ease of lifestyle and the healthful environment--factors which might easily be changed with industrial development.

A major factor affecting residential rates is the substantial difference in the level of usage by residential customers between the Cooperative and other utilities. In 1979 the average residential customer of Withlacoochee River Electric consumed 8,746 kilowatt-hours, whereas the average residential customer of Florida Power Corporation consumed 10,496 kilowatt-hours, or 20 percent more.

We believe this substantial difference is caused primarily by the large percentage of limited-income retirees on our system. It is obvious that if Withlacoochee River Electric were to sell its consumers 20 percent more current with its existing plant in service it could do so at a significantly reduced rate; but, of course, increased energy sales are not in the national interest.

In summary, some of the special circumstances and unique problems which affect Withlacoochee River Electric and its members are as follows:

1. During the past decade capital investment has gone from $13 million to $70 million and points out that a major portion of our utility system has been constructed during a period of sharply rising costs.

2. Withlacoochee River Electric is one of the fastest-growing utilities in the United States, with an annual growth rate of from three to four times that of its neighboring investor-owned utilities.

3. Withlacoochee River Electric probably serves a larger percentage of retirees than any other utility in the country.

4. Withlacoochee River Electric is predominantly a residential utility--probably more so than any utility of comparable or larger size; and its residential consumers are using 20 percent less electrical energy than the residential customers of neighboring investor-owned utilities.

5. Wholesale power costs--largely because of oil being the primary fuel for generation--have been high and are going higher. Latest statistics available to us are for 1978 and show that out of 909 cooperatives reporting our wholesale power costs are the nineteenth highest in the nation. I am sure we will move even farther up the list as a result of the latest increase given to Florida Power Corporation by the Federal Energy Regulatory Commission.

6. Even though the results were the same for both Florida Power Corporation and Withlacoochee River Electric customers, the effects of rising energy costs have nevertheless been further aggravated during the past three years by the extremely poor reliability factor of a nuclear unit.

It has already been stated that Withlacoochee River Electric has a substantially higher percentage of residential consumers than neighboring utilities, and in that percentage will be found an exceptionally large number of retirees. The significance of this is the fact that by and large these retirees have less money to live on; and as inflation continues to strain their limited incomes, they become more and more conscious of the ever-increasing cost of all goods and services--but especially the cost of electric service.

Billy E. Brown

Billy E. Brown, General Manager

STATEMENT BY

ASSOCIATION OF ILLINOIS ELECTRIC COOPERATIVES

Submitted to

SUBCOMMITTEE ON CONSERVATION AND CREDIT

U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON AGRICULTURE

Increasing energy costs are of concern to everyone whether located in urban or rural areas. However, those located in rural areas have traditionally paid more for energy than those located within urban areas. Those located in rural areas must travel farther and, therefore, must use more gasoline and oil than others, in some instances.

Electric energy costs have increased dramatically since the Arab oil embargo of 1973. Inflation has taken a tremendous toll on this capital intensive industry. Energy costs have had and continue to have a direct impact on agriculture.

Today, the primary reasons for increased electric rates, whether urban or rural, are inflation and the cost of fuel to generate electricity. For those utilities, such as electric cooperatives, which do not generate all of their electric power, they must purchase this for resale from other utilities, which means that all of these costs are reflected in wholesale or bulk power costs.

The primary fuels used to generate electricity are coal and nuclear power in Illinois. Even in coal-rich Illinois, some utilities must import lower-sulfur-content, western-produced coal in order to meet federal and state environmental regulations. The transportation costs of western coal present almost one half of the cost of that coal, which in turn must be passed on to the consumer.

Delays in the federal regulatory process for the construction, operation and licensing of nuclear facilities can be costly also. As an example, the nuclear Clinton Power Station, primarily owned by Illinois Power Company, is jointly owned by Soyland Power Cooperative, Inc. and Western Illinois Power Cooperative, Inc. If the operating license for the plant is delayed beyond April of 1982, it will cost the power company $160,000,000. Soyland Power

Cooperative will pay $50,143 per day for the purchase or replacement power, plus $62,666 per day for interest on capital invested, for a total of $113,000 per day or $1.17 per day per consumer-member served. A six month delay would cost Soyland an additional $20,300,000 or $210 per member served. It would cost Western Illinois Power Cooperative, Inc. $18,367,000.

The Illinois Commerce Commission ordered a management review of an investor-owned public utility in Illinois which stated that perhaps its most significant finding was that the increases in electric rates since 1973 were due primarily to inflation and the cost of fuel to generate electricity--factors which were largely outside the control of management. This was an independent study ordered by the Commission which regulates the utility at the retail level.

These problems are multiplied for utilities which serve in rural areas, such as electric cooperatives. With fewer consumers per mile of electric line and less revenue per mile of electric line they must have adequate access to reasonable capital available at reasonable interest rates. As you all know, the prime interest rate reached an all-time high of some 20 percent this year. Although it is on the decline now, these higher interest costs will be reflected in increased electric rates.

Finally, energy conservation will have an impact on increased electric rates. With fewer kilowatt-hours purchased and therefore less revenue being received by electric utilities, the fixed capital costs continue, such as interest on long-term debt for electric generating stations and other facilities. The federal Rural Electrification Administration has announced that if the drop in revenues is too serious for an electric cooperative then it may have to forgive certain loan payments for a period of time. So even energy conservation will have its price, at least in the near term.

In summary, the increased costs of energy and general electric power in particular are due primarily to inflation. In the case of electricity provided to rural areas, increased fuel costs, high interest rates and even certain energy conservation measures will continue to increase electric rates in both urban and rural areas for some period to come.

National
Farmers Union

STATEMENT OF

ROBERT J. MULLINS
ASSISTANT DIRECTOR OF LEGISLATIVE SERVICES
NATIONAL FARMERS UNION

Relative to

FACTORS RESPONSIBLE FOR INCREASES
IN ELECTRIC RATES IN RURAL AREAS

Presented to

THE CONSERVATION AND CREDIT SUBCOMMITTEE
HOUSE COMMITTEE ON AGRICULTURE
U.S. HOUSE OF REPRESENTATIVES

Washington, D.C.

June 4, 1980

We commend the Subcommittee for holding this hearing regarding factors responsible for increases in electric rates in rural areas.

Farmers Union is concerned not only with what rising energy prices do to the cost of farming, but we also recognize that rising energy costs in the food system are badly eroding the buying power of American families for the products of our farms.

It is projected that of the $280 billions spent by Americans this year on their food supply, about $33.5 billions will be identifiable as the energy element in food costs.

Further, it is projected that each 10% increase in energy prices will add about 1.3% to retail food prices.

As for farm producers themselves, it is estimated that 1980 outlays for direct energy and for the energy element in fertilizer, pesticides and other inputs, will exceed $6 billion, or about 8% of production outlays.

At the 78th annual convention of National Farmers Union held March 2-6, 1980, at Denver, Colorado, delegates approved an energy policy statement stressing the need for assuring ample supplies of energy for farm production and food processing, but also emphasizing the importance of pricing policies to keep energy costs at levels which permit desired and needed production.

● Suite 600, 1012 14th Street, N.W., Washington, D.C. 20005 – Phone (202) 628-9774

Several factors have put upward pressure on electric rates paid by farmers and other rural residents.

*The escalation of fossil fuel energy prices.

*The general inflation in the national economy.

*The tripling of interest rates since 1977.

*The costs of governmentally-mandated environmental safeguards.

These above pressures have been largely beyond the control of the Rural Electric cooperative distribution systems and other suppliers serving Rural America.

The failure of national policy to keep energy costs, interest rates and inflation rates within reasonable bounds has resulted in the existing electric energy costs. Moderation of these costs will not be achieved short of reducing basic fuel costs, interest rates and the inflation rate.

In ATTACHMENT "A", we show the relative prices paid by farmers as a percentage of 1967. While electric prices have virtually doubled since 1967, other energy prices have increased by two to three times in the same period. Undoubtedly, hydroelectric power prices have helped hold down the electric costs, on the average.

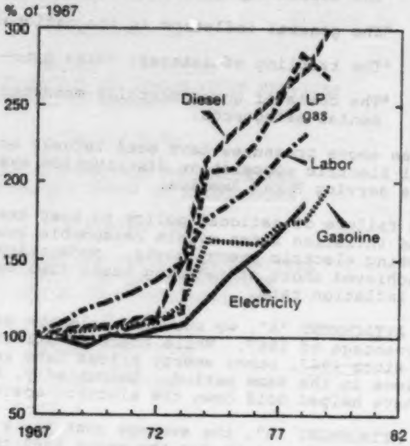
In ATTACHMENT "B", the average cost per kilowatt hour paid by farmers is shown by state for the years 1967 through 1979. The U.S. average has risen from 2.17 in 1967 to 4.24 in 1979.

But, REA distribution systems have done moderately better than all suppliers as shown for 1978 in ATTACHMENT "C". The average price paid by all farmers for electric power from all suppliers in 1978 was 3.98 cents per KWH, while the average price paid by REA customers for the same year was 3.60.

The pattern of interest rate changes for long-term REA financing is shown in ATTACHMENT "D", rising from 2.00% in 1970 to 8.33% in 1979.

ATTACHMENT "A"

Energy Prices Paid by Farmers



Energy Prices Paid by Farmers

	1975	1976	1977	1978	1979[1]
			Cents/gallon		
Gasoline (bulk)	49.8	53.7	56.9	59.7	68.1
Diesel	39.1	41.6	44.9	46.2	54.0
Liquefied petroleum gas	31.1	34.5	38.9	40.4	38.9
			Cents/10 KWH		
Electricity	30.7	33.5	36.8	33.8	--
			Dollars/hour		
Labor	2.45	2.65	2.90	31.0	--

[1] January-May average.

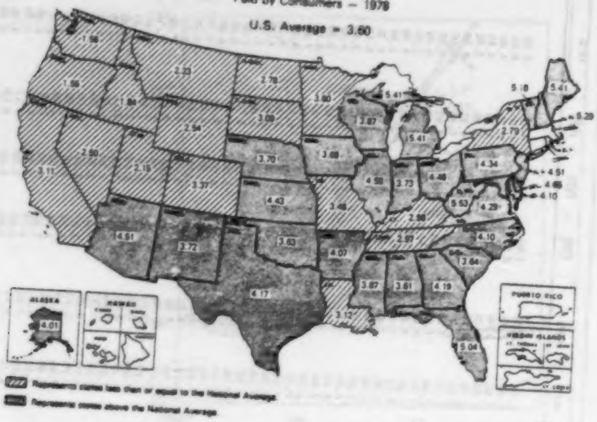
ATTACHMENT "B"

ELECTRICITY: ESTIMATED AVERAGE COST PER KILOWATT HOUR PAID BY FARMERS, BY STATES AND UNITED STATES, 1/

STATE	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
	CENTS												
ALA	1.80	1.50	1.80	1.70	1.90	1.90	2.10	2.20	3.00	3.30	3.70	4.00	4.70
ARIZ	2.00	2.00	1.90	1.60	1.90	2.00	2.20	2.20	2.80	3.00	4.20	4.80	5.50
ARK	3.00	2.90	2.70	2.70	2.70	2.60	2.60	3.00	3.00	3.00	4.20	4.40	4.50
CALIF	2.00	2.00	1.90	2.00	2.10	2.20	2.20	2.70	3.10	3.20	4.20	4.40	4.40
COLO	2.80	2.80	2.60	2.60	2.70	2.80	2.70	2.80	2.80	3.30	3.30	3.50	4.00
CONN	2.20	2.20	2.20	2.20	2.30	2.40	2.60	3.50	4.00	4.30	4.30	4.30	4.60
DEL	2.50	2.30	2.30	2.40	2.40	2.50	2.70	3.50	4.30	5.20	5.20	5.00	5.00
FLA	2.20	2.20	2.20	2.20	2.40	2.40	2.60	3.40	4.00	4.20	4.60	5.00	5.00
GA	1.80	1.80	1.90	1.90	1.90	2.10	2.10	2.60	3.50	3.60	3.80	4.20	4.70
IDAHO	1.60	1.50	1.50	1.40	1.60	1.60	1.50	1.70	1.90	2.50	2.90	2.60	2.60
ILL	2.60	2.50	2.40	2.50	2.50	2.40	2.50	3.00	3.50	3.80	4.10	4.70	5.00
IND	2.20	2.20	2.20	2.20	2.20	2.20	2.30	2.80	2.80	3.20	3.90	3.90	4.40
IOWA	2.70	2.70	2.80	2.80	2.60	2.70	2.40	2.90	3.30	3.80	4.00	4.30	4.60
KANS	2.80	2.70	2.70	2.70	2.70	2.60	2.60	2.80	3.20	3.40	4.00	4.50	4.80
KY	2.10	2.10	2.10	2.10	2.30	2.30	2.20	2.60	3.10	3.00	3.10	3.60	3.90
LA	2.40	2.20	2.20	2.30	2.40	2.30	2.30	2.60	2.70	2.80	2.90	3.00	3.80
MAINE	2.90	2.70	2.70	2.60	2.60	2.60	2.50	3.10	3.00	3.90	3.90	3.90	4.30
MD	2.40	2.40	2.30	2.30	2.40	2.50	2.70	3.50	4.10	4.00	4.00	4.60	4.70
MASS	2.70	2.50	2.50	2.40	2.50	2.80	2.70	3.50	4.10	4.70	5.00	4.60	5.20
MICH	2.20	2.20	2.10	2.20	2.20	2.30	2.50	3.10	3.70	4.00	4.20	4.80	4.80
MINN	2.40	2.30	2.30	2.30	2.30	2.40	2.50	2.80	2.90	3.10	3.30	3.70	4.10
MISS	2.20	2.10	2.00	2.00	2.10	2.10	2.30	2.70	3.30	3.70	3.90	4.30	4.70
MO	2.80	2.80	2.70	2.60	2.50	2.90	2.60	2.90	3.00	3.40	3.80	4.30	4.50
MONT	2.00	2.00	2.00	2.00	2.00	2.00	2.10	2.20	2.10	2.30	2.30	2.60	3.00
NEBR	2.30	2.30	2.40	2.30	2.20	2.30	2.40	2.80	2.60	3.60	3.70	4.00	4.00
NEV	4.30	3.00	2.70	2.40	2.30	2.30	2.40	2.80	2.80	2.90	4.00	4.00	4.00
N H	3.00	2.70	2.60	2.60	2.60	2.60	2.60	3.50	4.50	4.70	4.60	4.70	5.20
N J	2.50	2.30	2.30	2.40	2.50	2.50	2.70	3.50	4.40	5.10	5.50	5.70	5.90
N MEX	3.50	3.20	2.90	2.80	2.80	3.00	2.90	3.00	3.30	3.70	4.40	5.00	5.00
N Y	2.10	2.10	2.00	2.10	2.20	2.40	2.40	2.70	3.20	3.30	3.70	3.80	4.10
N C	1.90	1.90	1.70	1.70	1.80	2.00	2.10	2.70	3.30	3.70	3.70	4.10	4.40
N DAK	2.70	2.70	2.60	2.60	2.80	2.70	2.60	2.70	2.80	3.00	3.10	3.20	3.40
OHIO	2.20	2.10	2.00	2.10	2.20	2.20	2.30	2.80	3.30	3.60	3.80	4.30	4.60
OKLA	3.00	3.00	2.80	2.70	2.60	2.50	2.60	2.70	3.00	3.50	3.90	4.30	4.30
OREG	1.30	1.30	1.30	1.40	1.40	1.30	1.50	1.70	1.70	2.10	2.10	2.40	2.40
PA	2.00	2.00	2.00	2.00	2.20	2.30	2.40	3.00	3.40	3.40	3.90	4.70	4.40
R I	2.70	2.60	2.60	2.50	2.70	2.70	2.70	3.50	3.90	4.60	5.00	5.00	5.30
S C	2.00	2.00	1.80	1.90	2.00	2.10	2.10	2.70	3.50	3.70	3.80	4.10	4.30
S DAK	2.60	2.60	2.70	2.60	2.50	2.60	2.60	2.80	3.00	3.00	3.30	3.40	3.60
TENN	1.10	1.20	1.30	1.30	1.50	1.90	1.60	1.90	2.30	2.50	2.90	2.90	3.30
TEX	2.60	2.60	2.40	2.50	2.40	2.50	2.60	2.60	3.30	3.70	4.20	4.30	4.60
UTAH	2.40	2.10	2.00	2.00	2.00	2.00	2.10	2.10	2.40	3.40	3.40	3.70	4.20
VT	2.30	2.30	2.20	2.30	2.30	2.50	2.60	3.10	3.60	4.60	4.40	4.30	4.40
VA	2.20	2.10	2.00	2.00	2.00	2.00	2.20	2.70	3.40	3.50	3.90	4.30	4.70
WASH	1.10	1.10	1.00	1.10	1.10	1.10	1.20	1.50	1.60	1.60	1.60	1.60	1.60
W VA	2.50	2.40	2.20	2.20	2.20	2.30	2.40	2.00	3.20	3.90	3.70	3.90	3.90
WIS	2.40	2.30	2.30	2.40	2.50	2.50	2.70	3.10	3.30	3.70	3.90	4.00	4.30
WYO	2.50	2.20	2.20	2.10	2.20	2.10	2.20	2.50	2.20	2.50	2.80	3.10	3.40
U S	2.17	2.15	2.09	2.12	2.18	2.23	2.31	2.66	3.07	3.35	3.88	3.98	4.26

1/ BASED ON AN ANNUAL SURVEY MADE IN JULY AND AUGUST REPORTING DATA FROM MOST RECENT BILL, USUALLY JUNE TO JULY

ATTACHMENT "C"



REA Distribution Borrowers

Average Price Per KWH
Paid by Consumers – 1978

U.S. Average = 3.60

ALASKA
4.01
HAWAII
PUERTO RICO
VIRGIN ISLANDS
1.56
1.56
2.23
2.78
3.80
1.84
2.54
3.08
2.90
3.11
2.15
3.37
3.70
3.69
3.87
5.41
5.41
5.18
5.41
5.20
2.79
4.34
4.51
4.65
4.10
4.43
4.58
3.73
4.48
5.53
4.29
3.46
2.58
2.97
4.10
4.51
3.72
3.63
4.07
3.64
4.17
3.87
3.61
4.19
3.12
5.04

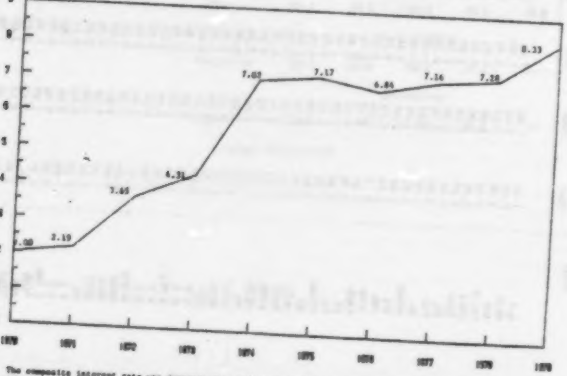
▨ Represents states less than or equal to the National Average.

▩ Represents states above the National Average.

ATTACHMENT "D"

COMPOSITE INTEREST RATE

Long Term Financing
REA Electric Borrowers



NOTE: The composite interest rate was determined by weighting dollars loaned by each source by the respective interest rates. REA loan guarantee commitments made in each fiscal year were included in determining the composite interest rates. The interest rate used for loan guarantee commitments was the average long-term FFB interest quotation for the fiscal year. In the case of loans with variable interest rates, the interest rate used was the rate in effect at the time the loan was made.

NRECA NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
1800 Massachusetts Avenue, N.W.
Washington, D.C. 20036/202-857-9500

July 15, 1980

JUN 21 RECD

The Honorable Ed Jones
Chairman, Subcommittee on
Conservation and Credit
Room 1301
Longworth House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

This letter transmits to you our answers to the supplemental questions requested by Congressman Kelly.

We appreciate your continuing cooperation and assistance and understanding of the problems encountered by rural electric cooperatives in today's difficult economic atmosphere.

Sincerely,

Robert D. Partridge
Executive Vice President and
General Manager

RDP:jw

Questions to Robert Partridge

1. Describe, in detail, what steps NRECA is taking to promote better communications/public relations between its member cooperatives' management and their membership.

2. What efforts has NRECA made to reduce the cost of power provided by RECs to their customers?

3. Does NRECA have an investigatory branch responsible for following up complaints by membership of management problems? If so, how does this branch function? How successfully has NRECA solved these kinds of problems?

4. What kinds of conservation programs does NRECA endorse? Has Withlacoochee River Electric Cooperative implemented any of these programs?

5. Besides CFC loans and political support, what other services does NRECA provide its REC members?

6. Would NRECA advocate Florida Public Service Commission rate regulation over Florida's rural electric cooperatives' retail rates? Why or why not?

7. What does NRECA envision as the future role of rural electric cooperatives in an age when many areas that were once rural are now urbanizing?

8. How much of the current communication problems between REC membership and management can be directly attributed to member apathy? What can be done about this problem? Has NRECA taken any steps towards reducing membership apathy? If so, what are they?

9. Does NRECA recommend changes in RECs capital credit programs where the membership changes (several more younger and retired members) occur that project problems for a capital credit program tied to a stable population and membership?

QUESTIONS FROM CONGRESSMAN RICHARD KELLY

Question One

Our objective is to assist member systems to serve their membership by promoting understanding through a two-way flow of information regarding mutual needs and concerns.

Our methods are five in number:

1. Publications

a. Rural Energy Update - mailed to 3,000 rural electric managers and staff concerning all member systems.

b. Share Pack - mailed quarterly to 425 subscribing rural electric systems.

c. Monthly mailing of letters and/or brochures to all systems announcing training programs, conferences and urging use of the other services available, such as member attitude surveys, and on-site consulting.

2. Training Programs and Conferences

Over 12,000 board members, managers and system personnel participate in all our management conference and training programs annually.

Several specific courses address the subject of direct member contact. In 1979, for example, we trained over 800 persons to perform in - home energy audits. In addition to training 300-400 more auditors, we expect to train a similar number of auditors in performing the RCS alternative energy audits for members in their homes as well as workshops on weatherizing mobile homes.

Other courses train system personnel on understanding and communicating effectively with the membership. Attached course outlines detail these efforts.

Our 1980 Member Service Conference in St. Louis will attract over 300 member relations specialists from the rural electric systems to hear and see demonstrations of effective member communications programs and improve their skills of understanding and communicating. The attached brochure describes the program content.

3. We provide a professionally developed and statistically sound survey of member attitudes. To date over 25 surveys have been done in the past two years. The general results have been shared in publications, training programs and conferences. A detailed report and recommendations to the system management are provided to those systems contracting for the survey.

4. We provide consulting services to the systems on a contracted basis in the area of member relations and communications. This was done for Withlacoochee River Electric Cooperative in November, 1979.

5. We offer media aids for communicating basic information to the membership on energy and cooperatives.

Our recommendations to rural electric systems include:

1. Development of a professional staff communication specialist to make sure the members are informed on what the system is doing.

2. Use the Member Attitude Survey to determine membership perceptions, needs and demographic makeup.

3. Personalize services by attempting to have each member know one system employee or director by name.

4. Develop member contact programs which reflect member needs, such as:

- Energy Conservation Audit
- Weatherization Workshop
- Educational Meetings
- Member Advisory Committees
- Rate Advisory Committees

5. Distribute a readable member handbook as well as the system bylaws, rules and regulations for service and rate schedules.

6. Publish and distribute a monthly publication which carries information on the system including future power supply and revenue needs.

7. Establish clear-cut and simple lines of handling member inquiries and complaints.

8. Designate one person as the continuing contact with all news media to insure a two-way flow of information between the system and the public.

9. Consider providing leadership for development of community services other than electric service. Several systems have assisted in establishing sewer and water utilities, cable television, community health care and other needed community services.

Beyond our publications, our efforts are limited to the systems which participate in our training and conference programs or contract for our consulting services.

In 1979-80, 1500 Energy Education Kits were distributed to a majority of the systems for use by them or for distribution to schools in their area. The kit included a filmstrip on energy and cooperatives, a script, a teacher's guide to activities, a bibliography of additional resources and, where desired, a tape cassette.

In the past twelve months we have sold over 800 sets, three slide and tape programs on "Energy Perspectives in America," "The Home Energy Audit," and "Weatherization of Your Home." These are used by the systems for member and community information meetings in their service areas.

In prior years, we have distributed other slide programs including one on "Electric Rates and Inflation" which was used by several systems.

We currently are offering a detailed brochure on home energy auditing entitled, "Dwelling on Conservation." We are encouraging systems to distribute this brochure to stimulate interest in home energy audits as well as a piece to leave with the member after a home energy audit. (Copy attached.)

Question Two

Since the cost of power averages 70 percent of a rural electric system's total expenses, NRECA is particularly concerned about reducing this major cost component. The cost of regulation accounts for a significant and increasing portion of power costs, and NRECA strives to minimize these through legislative activities and working with appropriate regulatory agencies. NRECA, in conjunction with CFC, sponsored a Power Supply Study Committee which developed recommendations to reduce power costs, and these are currently being supported by NRECA. The availability of reasonable cost capital is essential for power facilities, and NRECA works to strengthen the REA loan programs and the critical roles of the Federal Financing Bank and supplemental lenders.

Question Three

NRECA, as a membership organization, has no oversight function in terms of either responding to or investigating disagreements between its member cooperatives and their consumer members. We do, however, provide a number of training programs for cooperative personnel which are designed to train them in responsive handling of consumer dissatisfaction. It is our belief that the programs and policies of a membership organization, such as a local cooperative, are better handled by local member action than by "big brother" oversight from a state or national association.

Question Four

NRECA encourages its member systems to closely examine the needs of their respective memberships and to develop appropriate responses to meet those needs. Only the local rural electric system can determine the proper approach to take in communicating the importance of energy conservation to its members. However, there are two important sources that cooperatives have used to get suggestions from outside the boundaries of their service territory, both of which Withlacoochee has used. First is the hiring of consultants to make appropriate recommendations. Second is the borrowing of ideas that have proven successful at other co-ops. More specific information is included a little later in this response.

The kinds of conservation programs that are being conducted by America's rural electric systems are too numerous to mention. However, here is a list of the most typical:

- Energy information to consumers through bill inserts, newspaper ads, bulletins and newsletters.
- Energy audits, either conducted by the consumer with the aid of a guidebook supplied by the co-op, or, as is more normally the case, actually conducted by a trained advisor from the co-op.
- Presentations to schools, civic groups, garden clubs, homeowner organizations and other groups.
- Programs to encourage the construction of energy efficient homes.
- Programs to encourage the application of alternative energy sources.

Withlacoochee has responded to the needs of its consumers by taking several direct initiatives, which are listed below.

To date, there is a summary of the actions taken by Withlacoochee to meet the needs of its membership regarding information about energy conservation. The cooperative has:

- Regularly prepared consumer information bulletins on items of interest, including conservation.

- Engaged the services of a communications professional on the NRECA staff who has met with the Board and discussed various recommendations.
- In a joint effort with the Florida Power Corporation, it conducted an energy conservation seminar for commercial customers, utilizing the services of NRECA's energy conservation specialist.
- Conducted a series of lectures for residential consumers on home weatherization and energy conservation, again using the services of NRECA's energy conservation specialist. A copy of a newspaper article is enclosed which describes the series.
- Hired an experienced energy conservation specialist to be a full-time employee of Withlacoochee. This new staff member not only has technical expertise, but also has had considerable field experience with another rural electric system. The kind of programs he will inaugurate will undoubtedly be similar to the list of typical activities listed on the first page.

In summary, Withlacoochee River Electric Co-op, Inc. has already initiated meaningful conservation programs and has demonstrated its seriousness about continuing to meet its consumers' needs for more accurate information about energy conservation and what they can do to lessen the burden brought about by higher electric rates caused by inflation.

Question Five

CFC (the National Rural Utilities Cooperative Finance Corporation), although initially launched by NRECA to provide supplemental financing for rural electric systems, is a separate organization from NRECA. Its policies and activities are governed by its own members and board of directors. In addition to legislative support, NRECA provides a number of services for its members, including:

- Monitoring of regulatory activities of the Federal Government.
- A wide range of training and consulting programs, including director and employee training, organizational reviews, policy development, wage and salary surveys.
- Search, screening and interviewing assistance for cooperatives seeking highly qualified management, technical and professional personnel.

- Seminars and conferences which impart the latest social, economic, technical, political and legislative developments and how these impact on their organizations and jobs.
- Training and consulting for effective member and consumer education.
- Training and consulting in energy conservation.
- Public and member relations assistance.
- Information programs for directors and employees through a variety of publications and other communications.
- Coordination of national advertising.
- Coordination of activities of women within the rural electrification program.
- Coordination of annual Washington Tours of rural electric youth.
- Administration of insurance and retirement plans of rural electric systems and their employees, providing nearly every conceivable type of group insurance.
- Coordination of a variety of research projects being conducted by or for rural electric systems.

Question Six

No, NRECA would not advocate Florida Public Service Commission rate regulation over Florida's rural electric cooperatives' retail rates. The relationship between our member systems and their state regulatory bodies is unique in each state and is a personal one best worked out between the systems within that state and its legislators or regulators. Cooperatives are regulated by State commissions for rates in about one-half of the 46 states where rural electric cooperatives do business. Where they are not regulated, it has generally been because those states have noted that REA exercises certain regulatory or oversight functions with its borrowers, the systems are owned by their member consumers, they are nonprofit, and/or they are organizational structures in place by which the consumer members are able to influence the systems' operations (the election of their board of directors, etc.). On the other hand, some cooperatives have encouraged state commission jurisdiction for a variety of reasons. One of the most obvious of these is that the formal ratemaking processes of the State commissions tend to counterbalance consumer members' desires and pressures for unreasonably low rates.

Question Seven

NRECA expects rural electric cooperatives to continue to fulfill the role for which they were created: the providing of reliable electric service at reasonable cost. As the areas in which they pioneered change characteristics, such as becoming more urbanized or industrialized, these systems will be faced with special problems in meeting the expectations of consumers without backgrounds in how cooperatives work. This changing membership will require an increased emphasis of educational programs for consumers.

Question Eight

Based on twenty-five member attitude surveys made in the past two years by NRECA on representative member systems, we can make the following observations:

1. Historically, member meetings have been the key to member participation, since members can express their views there, voice concerns, elect the board of directors and receive a report from the management. Our survey* indicates that on the average less than 10% of the membership attend the annual meeting or any other meeting called by the rural electric system.

Of those responding to the surveys, an average of 25% do not recall any meetings of members. Of those who do recall receiving a meeting notice, 42% do not care to attend. Therefore, despite the ideal of member participation, and despite attempts to get universal member involvement, over 56% of those responding to the survey do not want to attend or are oblivious to the existence of member meetings. Of the remaining 44%, less than 1/4 ever attend.

*Member Attitude Survey: 2600 surveys are sent to the members of the rural electric system, using a random sample selection procedure. The first 500 responses are tabulated. An average of 30% who receive the survey do return it. The response rate varies from less than 20% to more than 70%.

2. Member satisfaction with the system's service is dependent on two factors:

a. The age of the member, his or her location, actual size of the electric bill and the perception of the relative increase in electricity costs. (e.g., younger members tend to be less satisfied.)

b. Member's experience with the system's personnel, their contacts with the system and the opportunity for having a say in system affairs. (e.g., those having little difficulty contacting the system office rated the quality of service higher than average.)

Question Nine

The Rural Electric Capital Credits Committee, appointed by NRECA and CFC, recommended serious consideration to the use of the percentage method of capital credit retirements, in which all members receive an equal proportion of their allocations. The Committee made its recommendation because of current membership patterns and activity and the need for current member involvement in the affairs of the cooperative.

Florida
Power
CORPORATION

JUL 14 1980

July 11, 1980

The Honorable Ed Jones, Chairman
U. S. House of Representatives
Committee on Agriculture
Subcommittee on Conservation & Credit
Room 1301, Longworth House Office Building
Washington, D. C. 20515

Dear Chairman Jones:

Thank you for your very kind letter concerning my recent appearance before your Subcommittee in Washington. Without restating the questions posed by Congressman Kelly, I shall set forth below our response to each question.

1. Our residential rates were last increased on February 7, 1978. This increase was based solely upon the recovery of annual fixed costs associated with our nuclear generating facility which was placed into service in the prior year. We received a general rate increase in August 1975.
2. Our present residential rate was not based upon allocated costs. In our 1975 full revenue requirements case, we filed cost-to-serve studies for both the then existing and proposed rates by revenue class. We did not base our retail rate design on the results of those studies. Intervenors in the proceeding urged the Florida Public Service Commission to place into effect rates based solely on cost-to-serve considerations. The Commission rejected the intervenors' proposal and ordered that the authorized rate increase be distributed among the various retail classes in a manner similar to that which we proposed. The Commission, in its Order No. 6794, discussed cost of service, rate design and revenue allocations, but as I have pointed out above did not order rates based solely on cost of service.

General Office 3201 Thirty-fourth Street South • P.O. Box 14042, St. Petersburg, Florida 33733 • 813—866-5151

3. The $2.50 per month residential customer charge was first implemented as a result of our 1975 proceedings. We provided to the Commission in that proceeding a calculation which indicated that our ongoing cost to render service to our customers, assuming zero usage, was $5.90 per month. We did not propose that the Commission adopt that number as a customer charge; rather, the Commission deemed $2.50 per month to be a reasonable charge. In our current rate proceeding, we have submitted data which supports a residential customer charge of $7.72 per month and have proposed that the charge be increased from $2.50 per month to $6.00 per month.

4. Attached are calculations to support the $18.80 MWH base price of fuel.

5. On April 22, 1980, we filed with the Florida Public Service Commission an application to increase our retail rates by $99 million on an annual basis. This represents an overall increase in retail base rates of 12.52%; however, we proposed an increase in our residential rate of 22%. If the Commission were to grant our request as submitted and if our fuel costs remain constant, our rate for 1,000 KWH residential would be $65.58.

6. We allocate costs to the various customer classes and between regulatory jurisdictions utilizing generally accepted cost allocation methods as described in the "Electric Utility Cost Allocation Manual" published by the National Association of Regulatory Utility Commissioners in Washington, D. C.

7. The class cost-to-serve study which we filed in our current rate proceeding indicates that our present rate structure does not produce uniform earned rates of return from the various retail classes. In this proceeding, the rates which we have proposed are intended to narrow the range of variation between the retail classes. I know of no way to state without equivocation that one class of customers is being subsidized by another class. I can point out that our rate of return earned on residential service falls somewhat short when compared to our overall retail rate of return, while our general service rates to commercial and industrial customers provide a slightly higher earned rate of return than the overall figure. What this means is that future rate increases should be allocated to the various customer classes with residential receiving a higher than proportionate share of the total increase.

I am hopeful that the information above will be helpful to your Subcommittee and stand ready to provide further assistance in this matter as necessary.

Cordially,

CWMcKee Jr

C. W. McKee, Jr.

FLORIDA POWER CORPORATION

COST RECOVERY CLAUSE - FOSSIL FUEL AND PURCHASED POWER

FUEL ADJUSTMENT FOR MONTH OF AUGUST 1975 BASED ON JUNE 1975 COSTS

(Applicable to Meter Readings Prior to 8/22/75)

1. Heat Rate Per KWH Generated

$\frac{\text{Total BTU}}{\text{Total Generation}}$ — 10,127 BTU

2. Delivered Efficiency

12 Month Running Average

$\frac{\text{Energy Sold + Company Use}}{\text{Energy Generated + Exchanged}}$ — 92.439 %

3. Heat Rate Adjusted for Delivered Efficiency

$\frac{\text{Heat Rate}}{\text{Delivered Efficiency}}$ — 10,955 BTU

4. KWH Per 1,000,000 BTU
(As adjusted for Delivered Efficiency)

$\frac{1{,}000{,}000}{\text{Adjusted Heat Rate}}$ — 91,283 KWH

5. System Generated Fuel Cost Per Million BTU

$\frac{\text{Fuel Cost - \$ Fuel Portion of Energy Component of Power Sold Outside the System}}{\text{Total MMBTU - MMBTU Sold Outside System}}$ — 170.297 ¢

6. System Generated Fuel Cost Per KWH

Item 5 ÷ Item 4 — 1.866 ¢ X $\frac{\text{System Generation}}{\text{System Generation + Purchases Total Only}}$ 1.671

7. Fuel Cost Per KWH Purchased

$\frac{\text{\$ Fuel Portion of Energy Component of Purchased Power}}{\text{Total KWH Purchased}}$ ÷ Item 2 — 1.999 ¢ X 1 - $\frac{\text{System Generation}}{\text{System Generation + Purchases Total Only}}$ .209

8. Weighted Average Fuel Cost (Item 6 + Item 7) — 1.880

SEMINOLE
ELECTRIC
COOPERATIVE
INCORPORATED

August 4, 1980

Mr. Ed Jones, Chairman
Subcommittee on Conservation and Credit
U. S. House of Representatives
Room 1301, Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Jones:

Enclosed are the answers to the questions which you submitted to me regarding Seminole. I would have welcomed the opportunity to appear at your hearing on June 4, 1980. Unfortunately, I did not receive the invitation until June 2nd, via phone call from Congressman Kelly. By then I had made commitments that I could not get out of.

I hope you and the others find the answers to the questions adequate and that this entire matter is settled to everyones satisfaction.

Yours very truly,

Harry

Harry W. Wright,
Executive Vice President
and General Manager

HWW:mak
Enclosure

0 EAST BUSCH BOULEVARD • TAMPA, FLORIDA 33612 • 813/933-7406

QUESTION Does Seminole Electric have any contract agreement with any investor-owned utility for the latter to purchase excess wholesale power? If so, who and how much power?

ANSWER No.

QUESTION Please break down Seminole's administrative costs, and the revenue source which pays these costs.

ANSWER Administrative costs are as follows: Salaries, wages, pensions, benefits, office expenses, rent, travel/meeting costs, insurance, depreciation, taxes (payroll and property), professional service fees (legal, financial, engineering, management services), recruiting/relocation, licenses/fees, company memberships/dues, abandoned project costs, etc - that are not attributable to a future power supply project.

The source of revenue that pays these costs is the Member Adjustment Factor.

QUESTION Rank, from highest to lowest, the Seminole cooperative customers according to wholesale rates per KWH; according to fuel adjustment costs. Does each cooperative pay the same wholesale rate? Why or why not?

ANSWER

1979 AVERAGE TOTAL COST/KWH
WHOLESALE PURCHASES SEMINOLE MEMBERS

	M/KWH	CO-OP	POWER SUPPLIER
Highest 1	38.74	Sumter	FPC
2	38.31	Withlacoochee	FPC
3	37.86	Peace River	FPC/FP&L
4	35.28	Central	FPC/SEPA
5	34.65	Okefenoke	FP&L
6	34.42	Clay	FP&L/FPC/JEA/Gainesville
7	33.79	Lee	FP&L
8	32.43	Talquin	FPC/SEPA
9	32.36	Glades	FP&L/FPC
10	31.69	Suwannee	FPC/SEPA/FP&L
Lowest 11	29.18	Tri-County	FPC/SEPA

1979 AVERAGE FUEL ADJUSTMENT COSTS MILS/KWH*

Highest 1	7.11	Withlacoochee
2	7.07	Sumter
3	6.76	Central
4	6.40	Peace River
5	5.88	Suwannee
6	5.69	Talquin
7	5.40	Tri-County
8	4.89	Clay
9	4.21	Glades
10	4.09	Lee
Lowest 11	4.07	Okefenoke

*Does not reflect differences in BASE rates, only reflects "Fuel Adjustment" component of billings divided by total KWH, including SEPA which has no fuel adjustment.

QUESTION Please provide a breakdown of the following information regarding SEC's operation, negotiated for and on behalf of WREC on a calendar year basis from 1974 to 1979, and a monthly basis from 1979 through May 1980: (1) The sources of your wholesale power purchases and the number of KWs purchased wholesale from each source; (2) the average price per KW from each source, excluding all fuel adjustment charges; (3) all fuel charges passed on to customers.

ANSWER The source of all of Whithlachoochee's wholesale power purchases from 1974 through the present has been Florida Power Corporation. Seminole has intervened on behalf of Withlacoochee (and the other ten Seminole members) in wholesale rate negotiations.

Withlacoochee
KWH Purchases From FPC

Year	KWH	MILS/KWH W/O Fuel	$Fuel Adj*
1974	Info Not Available -	(Seminole not in Operation)	
1975	418,507,828	10.72	$5,726,174.23
1976	473,944,342	27.64	(142,031.64)
1977	536,313,094	30.40	1,056,916.59
1978	606,441,652	30.89	2,300,742.38
1979	663,294,436	31.21	4,714,081.95
1980 Jan.	76,612,624	32.57	264,091.21
1980 Feb.	73,646,808	33.20	290,904.89
1980 Mar.	61,584,232	36.15	280,824.10
1980 Apr.	49,192,328	29.09	525,865.99
1980 May	46,702,944	38.54	471,821.33

*Does not reflect changes to the energy component in base rates, due to rate increases. Simply the sum of the "Fuel Adjustment" component of the billings.

QUESTION When Seminole's first coal-fired plant goes on line in 1983, what wholesale rate for sales has been estimated? For the next 10 years? Is this higher or lower than projections by current wholesale suppliers? Explain?

ANSWER Based on our most recent financial forecast (August 1979), average revenue/KWH (MILS) Projection are as follows:

1983	1984	1985	1986	1987	1988	1989	1990
59.64	61.72	63.73	68.18	71.87	75.26	79.33	82.06

1991	1992
86.17	90.07

These costs, in the aggregate, are projected to be lower than SECI's projection of our members costs of purchased power if we continued to purchase all the power and energy requirements from the present power suppliers (total requirement purchase, primarily from FPC and FP&L).

Each member cooperative has the same contractural arrangement with Seminole. Under this contract Seminole charges the member system for power under the rate schedule and tariff of the power supplier in the area of the member system. In other words, if Seminole is purchasing power from Florida Power Corporation and selling this to a member system in that area, the member is billed under the schedule of Florida Power Corporation. Since there is a difference between Florida Power Corporation, Florida Power & Light, the City of Gainesville, and SEPA schedules, there is a difference in the rate paid by each member.

QUESTION As a power cooperative, what services does Seminole provide its cooperative customers? Does Seminole provide any management training programs? Conservation programs? Bargaining services?

ANSWER Seminole provides members a variety of services. We have made power requirement studies, developed power supply plants, and are presently constructing two 600 MW coal fired units which will supply members. We have supplied transmission lines to direct power to members. Seminole bargains with present power suppliers for lower wholesale rates and more acceptable service provisions. Seminole is presently studying load management and assisting with the development of conservation problems. Seminole has also assisted members with training programs.

QUESTION Have any of Seminole's wholesale power sources indicated that they will be unable to meet the projected needs of Seminole's customers? If so, which, and why?

ANSWER Present wholesale power sources have not indicated that they will be unable to meet the projected needs of Seminole members; however, projections by the National Reliability Council have indicated shortages of power in Florida. Also much of Seminole's needs are presently met by oil-fired generation, where the supply of fuel is very vulnerable.

QUESTION What do you see as the future role of Seminole's Electric Cooperative in supplying the power that Florida rural electric cooperatives will need?

ANSWER Seminole will supply part of the power needs of their member systems through self-generation. Part of the needs will be met by purchasing power at the best rate and under the best terms available.

QUESTION Please provide information regarding the procedures Seminole followed in order to qualify for a $1-billion REA loan guarantee for generation and transmission facilities.

ANSWER Seminole followed all the required local, state, and federal procedures and met or exceeded all requirements. The process started with the load forecast, generation, planning studies, site studies, environmental studies of several sites, state site certification procedures, local zoning changes, environmental impact statement, a prevention of significant deterioration permit, a water quality permit, a core of engineers permit, etc. The entire process took from June of 1976, until September 1979. REA was informed and involved throughout the entire process.

QUESTION What are the terms of the contract to sell wholesale to Withlacoochee River Electric Cooperative? How long does the contract run? Do the other 10 rural electric cooperatives Seminole serves have the similar contract agreements with Seminole? If not, how do they differ? Are the individual members of each electric cooperative notified of any wholesale contract changes at the time they are made? If not, why not?

ANSWER The wholesale contract between Withlacoochee Electric Cooperative and Seminole is the same contract which Seminole has with other member systems. These are essentially 45 year agreements, which were signed in 1975. Some of the terms of the agreement are referred to in the answer to question No. 5.

You ask if the individual members are notified when a contract change is made. I do not know if they are or not. We certainly would not object to their being notified. These contracts are public information on file with the Rural Electrification Association.

United States
Department
of Agriculture

Rural
Electrification
Administration

Office
of the
Administrator

AUG 8 1980

Washington,
D.C.
20250

AUG 5 1980

Honorable Ed Jones, Chairman
Committee on Agriculture
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This will respond to your letter of June 13, 1980, which transmitted a copy of the questions asked by several Members during the hearings before the Subcommittee on Conservation and Credit on June 4, 1980, to determine factors responsible for increases in electrical rates in rural areas. Also, this reponds to your request of July 1, 1980, which transmitted supplemental questions asked by Congressman Kelly on the same subject.

Enclosed is a list of these questions with the REA responses.

If we can be of further assistance, please let us know.

Sincerely,

ROBERT W. FERAGEN
Administrator

Enclosures

1. Mr. Madigan - "Would you care to offer an estimate of how many coops still have some sort of promotional rate scheme?"

Answer
REA is now preparing a data base that will enable us to give you a more precise answer to this question. We have made a sampling among the coops and approximately 60% have improved or are in the process of improving their rate structure to be more in line with PURPA's standards for rate structure.

2. Mr. Huckaby - "Today, on the average, what percentage of total costs are coal fired plants paying for transportation to get the coal?"

Answer
REA's data base does not separate the cost of transportation from the total cost of fuel. Therefore, we are unable to give the average cost of transportation for coal shipments. In some cases transportation cost is the major portion of the total fuel cost. As an example, one cooperative purchases coal in Wyoming and transports it to Louisiana through a combined railroad and barge system paying a freight rate more than twice the mine-mouth cost of coal.

3. Mr. Huckaby - "How many coal fired generating plants owned by rural electric coops are there in the Nation?"

Answer
There are currently 48 coal fired power plants in operation in the U.S. that have been financed in part or in whole with REA funds.

4. Mr. Baldus - "I have a question about conversion from oil. I understand that oil can be attractive for peaking plants. You do not have the environmental problems. Perhaps initial cost is less, but I think that we all recognize that even the low percentage which you use, which is something like 13.8 percent oil, amounts to quite a lot of oil and it is more critical."

"Do you anticipate that 13.8 percent will diminish by, say the next five years?"

"Do you have any figure in mind that you could predict for us as far as years are concerned?"

Answer
The 13.8 percent figure referred to was the Nation's total electricity production from oil in 1979.

When the legislation to give assistance to convert oil fired plants to coal (now moving through Congress) is passed there should be a sizeable reduction in the use of oil to generate electricity. This along with new coal and nuclear plants being constructed should lower the 13.8 percent greatly.

In calendar year 1978 REA borrowers consumption of oil was about half of one percent of the total fuel used in REA financed plants.

QUESTIONS SUBMITTED BY CONGRESSMAN KELLY

Question 1

Give complete documentation for the statement that more power generation and transmission facilities, underwritten by REA loan guarantees, are necessary in order to supply the future wholesale needs of rural electric cooperatives, including:

a. Communications from investor-owned utilities which have notified the rural electric cooperatives they now serve that they will no longer be capable of serving their wholesale needs;

b. The number of IOUs which have served notice to local rural electric cooperatives that of future inability to supply wholesale power; the total number of KWs this represents; and the percentage of all power purchases or produced by RECs this represents;

c. An estimate of the amount of funding REA plans to commit to loan guarantees between 1979 and 1992 to build generation and transmission facilities, and the percentage of this new construction caused by IOUs which have given their REC customers notices such as those noted in (a) above.

Answer

Some REA borrowers have been informally told by their investor-owned power suppliers that they would like to discontinue serving them. We have urged them to fight strongly against having their power supply discontinued by the IOU. However, many REA borrowers have been informed that they should make other arrangements for increases in firm demand at some future date.

One must understand the very long lead time (7 to 10 years or more) to bring a new power source on the line. With this very long lead time to plan and construct facilities REA some time ago recognized the need to have projections of the additional power generation and transmission facilities and the REA financing that may be required to supply the future wholesale power needs of the rural electric cooperatives. Consequently, a study which will address this and other subject matters has been initiated and we expect to have the study completed in calendar year 1981. Enclosed are two graphs and a chart that present preliminary information in answer to a portion of the question.

The criteria to be met by borrowers for REA loans or loan guarantees for bulk power supply facilities are established in REA Bulletin 20-6, Loan for Generation and Transmission, and Bulletin 111-3, Power Supply Surveys. A copy of each of these bulletins is enclosed. Bulletin 20-6 sets forth the loan and loan guarantee policies. Bulletin 111-3 sets forth procedures utilized by REA in conducting studies of generation and/or major transmission and necessary negotiations and coordination where the facilities to be constructed as a result of the REA financing would displace existing contractual arrangements with a private company.

Question 2

What percentage of equity in assets does REA recommend its member RECs to achieve. Would REA recommend increasing equity in assets even if RECs must increase their rates substantially above investor-owned utilities in close proximity to achieve the desired equity level, thereby creating a situation where the REC would be in a non-competitive price range with the neighboring IOU? Explain how a situation like this could occur.

Answer

REA does not make a specific recommendation to its borrowers as to an appropriate percentage of equity.

It may be necessary for REA to require a borrower to raise retail rates to meet mortgage requirements pertaining to Times Interest Earned Ration (TIER) and Debt Service Coverage (DSC). Such a rate increase could result in an increase in equity percentage. Generally, no recommendation to increase rates specifically to raise equity percentage would be made, regardless of the rate comparability situation of the borrower.

Question 3

What factors may cause rates to vary between neighboring rural electric cooperatives, or between rural electric co-ops located in the same vicinity? Between RECs and investor-owned utilities located in close proximity?

Answer

Major factors that may cause rates to vary between electric suppliers include:

* Cost of power supply with principal factors being the mix of old and new generating capacity, energy sources (hydro, gas, oil, coal, nuclear, other) equity/debt relationship, return on equity, interest rate on debt, extent of transmission system, arrangements for reserve capacity, sales of temporary surpluses, purchases of temporary deficiencies and demand ratchets on wholesale purchases.
* Mix of consumer classes.
* system load factors (annual, monthly).
* annual profile of system monthly peak demands.
* consumer density.
* debt/equity relationship.
* cost of debt financing.
* return on equity.
* taxable or non-taxable operation.
* cooperative, public or investor-owned type of corporation.

Question 4

Please describe some of the management and technical assistance programs that REA provides to its borrowers. How often do you receive complaints about management's reluctance to discuss matters involving rates with the co-op's general membership? Give some examples. Do you have plans to attempt to correct these problems?

Answer

Through its published bulletins, REA defines and implements requirements of loan contracts and mortgages. These same bulletins also provide information and assistance in the areas of accounting, engineering, management and board of directors responsibilities.

In carrying out their assigned responsibilities, field representatives of REA assist and advise borrowers with specific problems.

The REA staff, as a team or in conjunction with Associations or groups of borrowers, participate in training seminars in various areas, such as financial planning, budgeting, forecasting, engineering symposiums and power supply analyses.

REA uses its data processing capability to prepare analyses of borrower performance. These management aids are sent to each borrower; they include a Borrower Statistical Profile, an Expense Comparison Study, and others. The annual reports that are required to be furnished to REA by each borrower form the data base for these analyses.

To date, REA has not received any great number of complaints about the rates, although with higher and higher wholesale costs the agency anticipates that there will be more and more of these complaints. There have been a few cases of managers or other officials of the cooperatives being reluctant to discuss these problems.

What REA is doing about this situation is discussed in more detail in the answer to Question 11.

Question 5

Explain the procedures Seminole Electric Cooperative followed in order to qualify for an REA loan guarantee of more than $1-billion for a generation and transmission facility in Palatka. Is this a situation in which the power-generating IOU notified its electric cooperative wholesale customers that they would be unable to meet their future needs? If so, please document. If not, describe what criteria were used to determine that the G&T facilities were needed.

Answer

Early in 1976 the management of Seminole contacted REA regarding its commencing preparation of engineering feasibility and environmental studies of power supply alternatives. Seminole, after coordination with REA, began its search for possible power plant sites in October 1976. Preliminary site selection work was completed in April 1977.

In May 1977 Seminole asked REA to work with its consulting engineering firm in detailed studies of available alternatives. This work was basically completed in August 1978 at which time detailed environmental assessment of alternative power plant sites and the power supply alternatives was undertaken. REA completed the environmental review process in September 1979. As part of the environmental review process REA as "lead agency" in conjunction with Federal, State, and local agencies reviewed the various studies, held public information meetings, held public hearings and advertised the proposed projects and alternatives in the Federal Register and in newspapers in Florida. During the entire decision-making process REA conducted an open review and fostered and encouraged public involvement.

The loan guarantee commitment for two 600 MW coal-fired units and related transmission facilities was approved by REA on September 27, 1979. Prior to this REA had reviewed Seminole's studies pertaining to the following.

- Member system power use data.
- Reliability criteria for Florida electric power systems.
- Seminole's increase capacity requirements.
- Fuel supply alternatives.
- Power cost studies.
- Transmission loan flow and stability studies.
- Plans for financing.

REA has made two guaranteed loan commitments to Seminole Electric Cooperative for power supply facilities. In each case the facilities will be operated so that the basic transmission delivery to Seminole's member distribution cooperatives will be through arrangements with Florida Power Corporation (FPC). These arrangements evolved through negotiations between Seminole and FPC. REA concluded that the power supply plan for Seminole, as developed in conjunction with FPC, constitutes the most effective and economical arrangement for Seminole to meet the increasing power requirements of the Seminole member systems. This plan provides for Seminole to meet these loan requirements through a combination of self-generation and continuing purchases from FPC.

REA guaranteed loan financing to Seminole has not been justified on the basis of notification by the existing power supplier that wholesale service would be terminated at a specified time in the future due to inability to continue to provide such service. In fact, Seminole and FPC have been coordinating power supply planning to enable Seminole to control the manner in which it will meet the power requirements of the distribution cooperatives that are in the FPC area.

Question 6

We understand that REA is making a detailed evaluation of long-term program objectives, regulations, and criteria governing borrower qualifications. Could you make any comments or observations in regard to the preliminary findings of this study? Please provide an update of the status and cost of G&T programs through 1990.

Answer

REA is studying long-term objectives. It is anticipated that the results of this will not be completed until some time in 1981. We do not see that any proposed changes in the REA program would involve greater subsidies, and in fact, could result in increased costs to some borrowers. We are enclosing two graphs and a chart that depict some of the preliminary information that has been developed from the study.

Question 7

In your testimony before the Conservation and Credit Subcommittee, you targeted the cost of wholesale power as the major cause of increased power costs in rural areas. In the case of Withlacoochee, are not the cost of power and the fuel adjustment charge passed on to the customer by the REC and the public utility virtually the same? It appears the difference in rates might be attributable to a 140% higher service charge, combined with base rates (exclusive of power adjustment costs) that are 20% higher at WREC. What factors could cause this discrepancy? What can be done to reduce or eliminate it? Explain your reasoning for such responses.

Answer

The increase in cost of wholesale power has been the major factor causing increases in retail rates.

Withlacoochee's costs, other than purchased power, plus margins (revenues less cost of purchased power) for 1979 equaled 31% of revenue; the 1979 median value of the same ratio for REA borrowers in Florida was 34% and for the United States was 36%.

As explained in Question 3 there are many factors that may cause rates to vary between electric suppliers.

REA has not undertaken the task to make an analysis of the retail rate structure of the Florida Power Corporation (FPC) because the necessary information is not available to us. It has been reported that FPC has made studies of their future retail rates along with Withlacoochee's. Reports indicate that FPC residential retail rates will be higher than Withlacoochee's after 1983.

Question 8

How many states have regulatory jurisdiction over their rural electric cooperatives? Is REA in favor of encouraging all states to have this regulatory jurisdiction? Why or why not?

Answer

23 states exercise regulatory authority over rural electric cooperatives' retail rates (in addition, Florida regulates rate structure but not level). REA does not take a position on this; REA recognizes that this is a matter for each state to decide.

Question 9

Unlike the Federal Energy Regulatory Commission (FERC), which utilizes a formal evidentiary hearing process, REA implements an informal advisory form of regulation over its REC borrowers. Should REA implement a more formal regulatory process, involving full evidentiary hearings where state law does not provide retail rate regulation and rate hearings? Why or why not?

Answer

REA does not have statutory authority to institute formal regulatory process. If Congress were to provide for formal rate regulation by REA, substantial appropriations would be needed for additional staff and expenses; the additional staff and expense requirement would probably exceed the present authorized staff and budget for the electric program. Formal rate regulation by REA would cause substantial new costs to the electric borrowers and to their consumers. We believe that the cooperative form of organization - member consumer, member-elected board of directors - directors responsible for management, and members being allocated patronage capital from revenues that are in excess of costs - provides the best form of regulation.

Question 10

In many cases, the REA is in a position of informally regulating the rates of rural electric co-ops while also providing them with funds and protecting the federally-financed investment once the loan is made. Do you feel that this dual role may be a conflict of interest, since the same agency which provides investment funds to these co-ops also has the responsibility for regulating their operations? Explain.

Answer

REA, in its function of rate review of and as a primary lender to electric borrowers, does not and has not seen a "conflict of interest" arise in performing its role. Reasonable financial viability, as required by the mortgage, is, we believe, of long-run benefit both to the Federal Government and to the consumer and therefore is not a conflict of interest.

Question 11

What steps would you, as the Administrator of the Rural Electrification Administration, take or have you taken to improve the image of rural electric cooperatives across the nation?

Answer

A number of steps have been taken in the past 20 months since my taking office as Administrator. An important organisational step was placing the former Information Services Division in the Office of the Administrator and redesignating it in early 1979 as the Office of Information & Public Affairs. This was not a cosmetic realignment for its own sake. Among other considerations, this was done to set an example to rural electric borrowers that the communications function was considered an important one in the conduct of rural electric affairs. Another major factor in making this decision was my desire to have a more direct and clear channel of communication with the legislative branch.

Since October of 1978, in the numerous addresses before rural electric bodies that are incumbent upon this office, I have constantly stressed the need for more responsive communications between local rural electric systems and their member-owners. In addition to mere persuasion, I have called to the attention of REA borrowers the fiduciary responsibility they have to assure REA that relations with their consumers are of a satisfactory nature that the loan to the government is not jeopardized. These relations are crucial, I have told them, in both law and in fact.

In addition to these general persuasive efforts, REA has also established a number of concrete programs of advice and assistance to borrowers. In September of 1979, the Office of Information and Public Affairs established an advisory service for borrowers and appointed a Member Services Officer with background in consumer complaint handling and other techniques. A large number of borrowers have been aided by this advisory service, and in addition, the agency has also provided each rural electric borrower with a rate information kit which enables local systems to conduct a step-by-step public information program to prepare their member-owners for increases in cost of service well in advance of the increase. Copies of this information kit have been provided for the subcommittee.

In July of 1980, REA, in cooperation with NRECA, held a "National Rural Electrification Communications Conference" in Minneapolis, which involved a comprehensive dialogue and discussion of mutual problems being experienced nationally in rural electrification. More than 500 communicators, managers and directors of rural electric systems participated in this meeting which offered ten workshops in several areas of communications responsibility. A copy of the conference program is provided as an exhibit.

REA's program of energy conservation has been one which has had the benefit of re-exciting communications and contact between the local systems and their consumers. There is a common goal which the consumer can associate with through the local cooperative and which has served as a unifying factor in relations. This matter was also addressed and explored at the national conference in Minneapolis.

Communications and information specialists of REA are on call to rural electric systems which are experiencing difficulties in this area of REA, of course, and have been very effective in the past in assisting local systems which have sought advice. At the present time, REA is conducting surveys of rural electric systems to determine areas where greater emphasis can be supplied in the conduct of a communications program. Once this survey is completed and analyzed for need, additional assistance will be provided to those systems requiring it. This will be provided through cooperative programs involving the REA Office of Information & Public Affairs and also through other systems that have successful communications programs as well as through programs of state and national rural electric associations.

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Electrification Administration

April 4, 1978*
Supersedes 8/4/69

REA BULLETIN 111-3

SUBJECT: Power Supply Surveys

I. Purpose: This bulletin sets forth REA policy with regard to Power Supply Surveys and certifications thereto by the Administrator in relation to the approval of loans and loan guarantees for certain generation and/or transmission facilities.

II. Policy:

A. Requirement for Power Supply Surveys: A Power Supply Survey is required prior to acceptance by REA of applications for loans or loan guarantees for generation and/or major transmission where the facilities to be constructed would displace existing contractual arrangements with a private power company. No such application will be accepted for consideration by REA unless (a) a Power Supply Survey has been completed, or (b) it is determined by the Administrator that completion of the Survey requires full review of the application.

Where a Survey is required, the applicant shall provide a full description of existing contractual arrangements for power supply, a statement of any special problems, a general summary of power supply needs, copies of any proposals made by the existing supplier, and a summary of negotiations with the existing supplier.

B. Conduct of Survey:

1. The Survey shall be so conducted as to determine the basis upon which the existing supplier is prepared to cooperate in the development of an assured source of power financed with the proposed loan or loan guarantee.

2. If arrangements satisfactory to the Administrator under (1) above are not available and the existing supplier has made a proposal for continuing the existing supply arrangements, the Survey shall determine whether the proposal is reasonable for purposes of the Rural Electrification Act.

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* Revised to incorporate changes requested in Senate Report 95-296 and to increase the financing level requiring certifications to the Congress when certain Power Supply Surveys are conducted.

3. If the Administrator finds such proposal unreasonable for purposes of the Rural Electrification Act, REA will advise the existing supplier wherein the proposal is unreasonable and endeavor to have such proposal made reasonable. The REA borrower or potential borrower shall be made a party to any negotiations between REA and such power supplier. When necessary to avoid dilatory tactics or protracted delays, the Administrator shall advise the parties in such cases of a definite time limit for negotiations under the Survey, and final cutoff date for proposals which are to be considered in evaluation of the application.

C. Certifications Required When Survey Procedure Results in a Loan or Loan Guarantee by REA: No loan or loan guarantee for generation and/or transmission facilities will be approved except in compliance with all applicable bulletins and, if a Power Supply Survey is required pursuant to paragraph II-A, unless certification is made by the Administrator to the Secretary of Agriculture that the loan or loan guarantee has been approved after completion of a Survey that shows that the loan or loan guarantee is (a) needed to provide an assured source of power which has been developed in cooperation with the existing power supplier; or (b) needed because the proposal from the existing supplier to provide the facilities or service to be financed was found to be unreasonable for the purposes of the Rural Electrification Act, the supplier was advised of the provisions that made its proposal unreasonable, REA attempted to have such proposal made reasonable, and the existing supplier had failed or refused to do so within the time set by the Administrator.

A loan or loan guarantee requiring a Power Supply Survey shall also be certified to the Comptroller General, the Senate and House of Representatives of the United States, as directed by the respective bodies, if it (i) exceeds $10,000,000 and is certified pursuant to (a) above, or (ii) is certified pursuant to (b) above. Such additional certifications shall be accompanied by the following information:

1. The name and address of the applicant borrower and the date of the application.

2. Description and estimated cost of the proposed generation facilities. Indicate if the proposed facilities are the initial or additional unit or units of a plant comprised of one or more units.

3. Description and estimated cost of proposed transmission facilities, including any immediate or future plans to interconnect with other transmission systems.

4. Description of any long-range plans the applicant may have for construction of additional generation and transmission facilities and the estimated cost of the planned facilities.

5. Comparison of the estimated costs of generation by the applicant borrower with the cost of power available from the existing supplier, including the final offer by the supplier including terms and conditions offered to meet applicant's long-term energy needs.

6. Summary of the efforts made by the applicant and by REA to obtain the applicant's power and energy requirements from existing power suppliers and the reasons why such efforts have not been successful.

7. Explanation of the applicant's reasons for seeking an REA loan or loan guarantee.

8. The amount of electric energy which the applicant will cease to purchase from the existing supplier upon construction of the generating plant for which REA financing is being sought.

9. Explanation of the extent to which the feasibility of the requested loan or loan guarantee for generation and transmission facilities depends upon the use of a portion of the facilities by others (including Federal power marketing agencies).

10. Details of the applicant's plans to sell or otherwise make available any of the power and energy from the proposed generation facilities to others (including Federal power marketing agencies).

11. Names of State agencies and commissions having jurisdiction over the applicant borrower.

David A Hamil
Administrator

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  GENERATION FACILITIES:
    Power Supply Surveys
  LOANS:
    Power Supply Surveys
  POWER SUPPLY SURVEYS
  TRANSMISSION FACILITIES:
    Power Supply Surveys

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Electrification Administration

May 7, 1969
Supersedes 5/31/61

REA BULLETIN 20-6

SUBJECT: Loans for Generation and Transmission

I. Purpose: The purpose of this Bulletin is to set forth Rural Electrification Administration loan policy concerning generation and transmission facilities.

II. Policy:

A. The Rural Electrification Administration will make loans to finance the initial construction of generation facilities by distribution or power supply borrowers, and of transmission facilities by power supply borrowers, only under the following conditions:

1. Where no adequate and dependable source of power is available to meet the consumers' needs, or

2. Where the rates offered by existing power sources would result in a higher cost of power to the consumers than the cost from facilities financed by REA, and the amount of the power cost savings that would result from the REA-financed facilities bears a significant relationship to the amount of the proposed REA loan.

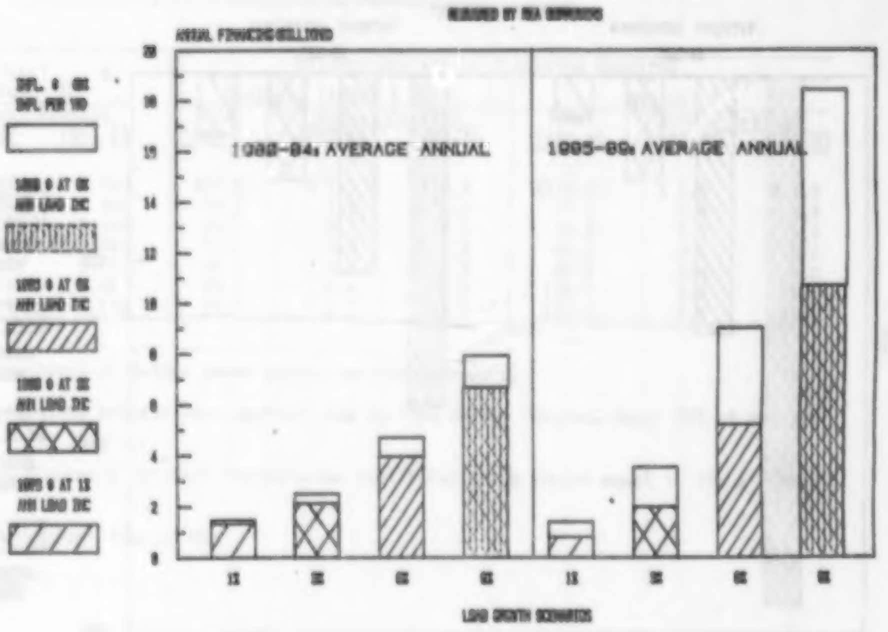
B. Applications for supplemental loans for these purposes, and for the construction of transmission facilities by distribution borrowers, will be considered and evaluated in terms of whether the proposed additional facilities constitute the most effective and economical arrangement for meeting the increasing power requirements of the consumers.

The policy stated in REA Bulletin 111-1, "Wholesale Contracts for Purchase and Sale of Electric Energy," will be considered in evaluating all power supply proposals.

David A. Hamil
Administrator

Index:
GENERATION FACILITIES: Loans for Generation, Transmission
LOANS: Generation and Transmission Facilities

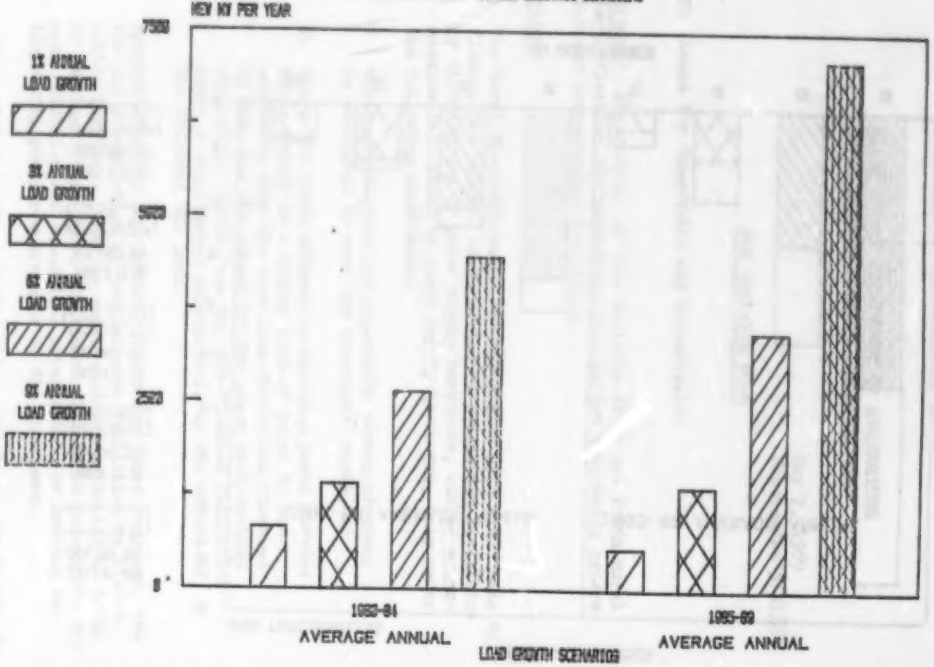
ANNUAL POWER SUPPLY FINANCING



NOTE: SEE ASSUMPTIONS LISTED ON ACCOMPANYING TABLE

PROJECTED GENERATING CAPACITY FINANCED

BY REA ELECTRIC BORROWERS



NOTE: SEE ASSUMPTIONS LISTED ON ACCOMPANYING TABLE

BULK POWER SUPPLY FACILITIES FOR WHICH FINANCING WILL BE REQUIRED BY REA BORROWERS

Annual Load Growth, 1980-89	Percent of Total REA Borrower Needs Supplied by Borrower's Own Generation 1/		MW of Additional Capacity Financed 2/			Billion Dollars of Financing Required					
						Constant (1980) $ 3/			Nominal $ 4/		
			Total	Annual Average		Total	Annual Average		Total	Annual Average	
	1980	1989	1980-89	1980-84	1985-89	1980-89	1980-84	1985-89	1980-89	1980-84	1985-89
1%	36.0	51.7	6,989	835	563	$10.5	$ 1.3	$ 0.8	$$14.6	$ 1.5	$ 1.5
2%	36.0	52.5	9,937	1,081	906	14.9	1.6	1.4	21.2	1.9	2.3
3%	36.0	53.7	13,796	1,393	1,366	20.7	2.1	2.0	29.9	2.5	3.5
4%	36.0	54.4	18,518	1,759	1,944	27.8	2.6	2.9	40.6	3.1	5.0
6%	36.0	55.8	30,572	2,638	3,477	45.9	4.0	5.2	68.2	4.6	9.0
8%	36.0	57.2	46,631	3,759	5,567	69.9	5.6	8.4	105.1	6.6	14.4
9%	36.0	57.8	57,830	4,446	7,120	86.7	6.7	10.7	131.2	7.8	18.4

Assumptions: 1/ REA's best judgement concerning source of future power supply for REA borrowers.

2/ 50% load factor; a four year lead time between loan approval and on line dates; reserves equal 20% of require capacity.

3/ 1980 cost per KW of $1,200 plus financing for bulk transmission facilities in an amount equal to 25% of gener plant investment.

4/ Constant (1980) $ inflated at an annual rate of 8%.

Note: MW = one thousand Kilowatts of capacity.

Withlacoochee River Electric Cooperative, Inc.

P. O. BOX 278
DADE CITY, FLORIDA 33525

August 21, 1980

AUG 2[illegible] REC'D

The Honorable Ed Jones, Chairman
Subcommittee on Conservation and Credit
U. S. House of Representatives
Room 1301, Longworth House Office Building
Washington, D. C. 20515

Dear Congressman Jones:

Attached is our written response to the supplemental questions submitted by Congressman Richard Kelly.

We hope this information will satisfactorily answer all of his questions and be helpful in resolving this matter. However, should you or other members of the Subcommittee have additional questions, please do not hesitate to let us know.

Very truly yours,

Billy E. Brown

Billy E. Brown
General Manager

jh

Attachment

1. Before answering the question, a misunderstanding concerning the development of the $31.08 base monthly charge in the residential rate should be clarified. As noted in the following presentation, the corrected base rate charge for 1000 kWh wage by a residential consumer for the rate in effect when the calculations were made is $29.05.

	Withlacoochee Residential Rates Effective		
	4/1/77-4/30/80	5/1/80-6/30/80	7/1/80
Customer Charge:	$6.00/month	$6.00/month	$6.50/month
Energy Charge:			
First 750 kWh	0.04550/kWh	0.05560/kWh	0.06100/kWh
All Over 750 kWh	0.04250/kWh	0.05260/kWh	0.06100/kWh
Fuel Base:			
FPC Base Fuel	0.01448/kWh	0.02377/kWh	0.02412/kWh
WREC Base Fuel	0.01572/kWh*	0.02580/kWh*	0.02618/kWh*

* Includes 7.86% Line Loss to convert purchased power base cost (FPC) to WREC delivered cost to consumer.

Derivation of Base Rate Charge for 1000 kWh

	Original Calculation	Correction
750 kWh @ 5.56¢	$41.70	$41.70
250 kWh @ 5.26¢	13.15	13.15
Subtotal	$54.85	$54.85
Fuel Base for 100 kWh	23.77	25.80
Base Charge	$31.08	$29.05

Attachment A hereto provides a summary component cost analysis (customer, demand and energy) for the residential class based upon the recently completed (April, 1980) Cost of Service Analysis for Calendar Year 1979 prepared for Withlacoochee by Southern Engineering Company of Georgia. This analysis varies from the rate design in only one significant way. The component cost analysis is based upon the rate being fully compensatory by producing the allowable 8.09% rate of return (Withlacoochee's cost of capital per same Study -- see pages 4-5 of Attachment A). The residential rate, however, is not fully compensatory as indicated by the 6.41% earned rate of return (see page 2 of Attachment A).

The cost of service analysis for residential consumers shows that the base rate charge for 1000 kWh should be as derived below:

	Amount
Demand-Related Cost - 1000 kWh @ $0.022/kWh	$22.00
Energy-Related Cost - 1000 kWh @ $0.031/kWh	31.00
Cost Excluding Service Charge	$53.00
Fuel-Related Cost - 1000 kWh @ $0.02343/kWh*	23.43
Base Rate Charge (fully allocated cost)	$29.57

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* Fuel-Related Cost for System

Base Fuel Cost ($0.02580 x 611,132,151)	$15,767,210
Fuel Adjustment	(1,448,624)
Fuel-Related Cost - $	$14,318,585
kWh Sales	611,132,151 kWh
Fuel-Related Cost - $/kWh	$0.02343

Note: Fuel-related cost of $0.02343 is less than the WREC base cost of $0.02580 due to negative FPC Fuel Adjustment in 1979 based upon $0.02377 FPC base cost.

2. Withlacoochee is aware of and very much concerned about its residential rate being higher than Florida Power Corporation's standard residential rate. There are numerous factors which contribute to this differential: (1) age of the electrical system; (2) consumer density; (3) consumer characteristics; and (4) system load factor. The following discussion and accompanying attachments illustrate graphically the substantial differences between Withlacoochee's system and Florida Power's system that produce the cost of service differentials and thereby the rate differentials.

As indicated previously in statements presented to the Sub-Committee, services in place on the Withlacoochee system grew 273% (approximately 14% per year) from 1969 to 1979. This growth in consumers necessitated a 427% growth in plant investment during the same period. In other words, 81% of Withlacoochee's facilities investment has been added during this short ten-year span (the highest inflation period in modern times). During the same ten-year period, Florida Power's customers increased by 77.7% or approximately 5.9% per year.

Withlacoochee served approximately 17 consumers per pole mile of distribution line in 1979 (see Attachment B). Although this ratio is considerably above the national average for rural electric cooperatives, the chart shows that Withlacoochee's density is less than half that of Florida Power at just over 38 consumers per mile.

Furthermore, Withlacoochee's residential consumers' average monthly usage of 679 kWh in 1979 was 22% less than Florida Power's monthly residential usage of 875 kWh (see Attachment C). It is axiomatic that recovery of fixed costs (plant investment and fixed operation expenses) over greater unit sales lowers the average cost per unit, thus contributing to the rate differential.

The marked effect of the comparative consumer densities, growth in plant investment and comparative usages is seen on Attachment D comparing the Distribution Plant Investment Per kWh Sold of Withlacoochee and Florida Power. Withlacoochee's investment of 10.0 cents ($0.10) per kWh sold is 2.7 times greater than Florida Power's investment of 3.7 cents ($0.037) per kWh sold.

Withlacoochee has experienced a sharp increse in its winter-peaking load pattern in the last ten years due principally to increased electric heating load (see Attachment E). Annual kilowatt-hour sales have not kept pace with this load growth; therefore, annual load factor has deteriorated from a modest 42% in 1970 to 35% in 1979 (see Attachment F). Much of distribution plant is designed to serve load (kilowatts or demand), but the costs associated with the investments are recovered in the form of kilowatt-hour charges. Poor load factor thus results in higher unit cost per kWh. Attachment G compares Withlacoochee's monthly load factor with Florida Power's load factor for three years. If the two systems had identical investments and consumer density, which certainly is not the case, the differing load factors alone would produce different unit costs (rates).

Withlacoochee has not attempted to quantify individually the per unit cost ($/kWh) impact of these various price-influencing factors. To do so would be costly and time consuming and unnecessary since on their face these factors substantiate that costs on Withlacoochee's system are higher per kilowatt-hour sold than on Florida Power's system.

The rate differences between these systems show only an absolute difference in charges for service. Cost justification of differences can be determined only if each system's rate is cost-based. Withlacoochee's residential rate is below the cost of providing service as shown on Attachment H (from Cost of Service Analysis for Twelve Months Ended December 31, 1979, dated April, 1980). Withlacoochee can only speculate that Florida Power's residential rate is also below cost based upon recent submittals to the Florida Public Service Commission by the Company. Comparing the rates beyond the general facts presented above is meaningless unless the rates are both cost-based and thus on equal footing or comparison.

Withlacoochee has made and continues to make every effort to provide reliable service to its consumer-owners at the lowest cost consistent with good utility practices and simultaneously to meet its utility commitment to serve. At the same time, Withlacoochee's manageable (actually partially manageable) costs as a percent of total costs have dropped from 28% in 1969 to only 12% in 1979 (see Attachment I). In the face of adversity this dedicated effort is best illustrated by the favorable statistical comparison of Withlacoochee with other rural electric cooperatives and neighboring utilities published by the National Rural Utilities Cooperative Finance Corporation (see Attachment J).

3. As far as we know, it has not happened. Upon examination we believe there are several reasons for the disparity, but we have not found a price squeeze to be one. Nevertheless, we have in the past and will continue in the future to vigorously oppose wholesale price increases when we believe them to be excessive.

4. Any refund received from a reduction in the wholesale power rate will flow through to all rate classifications. There has been one prior instance of a refund, and it was in turn refunded by check.

5. In April, 1980, Florida Power Corporation began using a new six-months level fuel adjustment factor in compliance with the Public Service Commission Order requiring same. The wholesale power contract does not contain this provision; and, therefore, the wholesale fuel adjustment will fluctuate as the estimated and actual fuel costs fluctuate. This condition will prevail as long as there are two different methods of recovering the cost of fuel. Because Withlacoochee is on a current basis of cost recovery, there will surely be periods when the retail adjustment of Florida Power Corporation will be above that of the Cooperative due to these different methods. In any case, it does not constitute additional revenue.

6. The $6.00 per month customer charge was applicable to Residential Service Schedule "R" which was effective from April 1, 1977, to June 30, 1980. On July 1, 1980, a revised Residential Service Schedule "R" containing a $6.50 per month customer charge became effective.

A customer charge such as this is implemented in an electric rate service schedule to recover the portion of the cost of providing electric service which is a function of the number of consumers served by the system.

Customer costs include metering, billing and account expenses, customer informational expenses, an allocated portion (customer component) of the distribution system (distribution lines and below) and operating margins (return = cost of capital including equity).

The customer charge (both the $6.00 and the $6.50) are not fully compensatory based upon the allocated cost of service analysis for the Withlacoochee system prepared in April, 1980. That analysis separated total system costs into customer, demand and energy components and allocated the various components to each service classification. The attached summary (Attachment K) of the fully allocated customer-related costs associated with service to residential consumers produces an indicated customer charge of $6.92 per month. The present $6.50 is near the allocated cost, is not unreasonable and is fully justified based upon consideration of necessary assumptions made in developing the cost of service analysis.

The revenues collected from the monthly customer charge are used to service the debt, pay the operating expenses, provide the necessary working capital and contribute to operating margins required to meet lender stipulated financial tests (such as interest coverage and debt service coverage) and target capital ratios.

7. The percentage of equity and the margins as a percentage of electric revenue for the years 1970 through 1979 are expressed as follows:

Year	Equity	Operating Margins	Non-Operating Margins	TIER
1970	19.90%	4.70%	(.53)%	1.56
1971	18.20%	8.94%	1.12%	2.43
1972	13.44%	6.96%	.03%	2.12
1973	8.17%	(4.16)%	.85%	.58
1974	8.63%	3.65%	1.65%	2.73
1975	10.18%	5.54%	.75%	1.78
1976	11.11%	4.75%	.61%	1.67
1977	13.13%	7.10%	.71%	2.17
1978	15.11%	7.51%	1.02%	2.39
1979	17.06%	6.74%	1.41%	2.30

The increase in equity is not the result of a specific direction but rather from an effort to maintain a satisfactory Times Interest Earned Ratio (TIER). Margins should be reasonably sufficient to assure confidence in the financial soundness of the Cooperative and should be adequate, under efficient and economical management, to maintain and support its credit and to enable it to attract non-government debt financing at the most favorable cost.

The equity level is presently below what it was ten years ago. Margins as a percent of revenue do not appear to be excessive, and the TIER is well below the recommended level of 3.0 or more.

8. On May 22, 1975, Withlacoochee entered into a 45-year wholesale power contract which was subsequently approved by the Rural Electrification Administration on July 31, 1975.

No special notice of the contract was given to the members although Annual Reports and Consumer Information Bulletins have provided numerous references to the status of Seminole and the benefits to be derived. It is well within the purview of the Board of Trustees to enter into contracts of this nature without soliciting approval of the membership.

The initiative of Seminole to provide generating capability for its members stems not from an unwillingness on the part of Florida Power Corporation to meet the needs of the cooperatives, but rather from a projected shortfall in generating capacity in the state of Florida in the 1980's. The economics are such that this is a more favorable avenue by Seminole to meet the needs of its members.

9.

			New Services	
Year	Increase In Utility Plant	Loan Funds Advanced	O.H.	U.G.
1970	$ 3,112,319	$ 1,778,462	2,831	547
1971	3,420,285	2,664,209	3,132	1,173
1972	4,679,708	3,291,051	3,743	2,283
1973	10,802,875	11,004,750	4,000	3,604
1974	5,685,090	6,772,100	3,353	2,783
1975	4,891,211	7,294,900	1,929	1,899
1976	4,213,978	1,970,000	2,578	1,223
1977	5,228,657	3,332,000	3,041	1,876
1978	7,666,412	5,623,750	3,058	2,667
1979	7,603,711	5,056,000	3,450	3,146
	$57,304,246	$48,787,222	31,115	21,001

Loan funds are used to reimburse approved construction work orders which were originally financed from general funds. These work orders consist of new construction, system improvements and replacements, less any salvage resulting from retirement work orders as well as any contributions made toward the cost of construction, all accounted for in accordance with the Uniform System of Accounts.

In addition is the reimbursement of special equipment items such as meters, line transformers, oil circuit reclosers and sectionalizers.

No loan funds are used to finance maintenance of existing plant.

10. In our most recent financial forecast, we have used the present retail rate structure as a basis for estimating the future typical bills for residential and non-residential consumers. These estimated bills incorporate the increased power cost, increased interest cost, increased operating expenses, and additional amounts needed to meet mortgage requirements and equity goals, to repay capital credits as planned and to maintain a solvent financial condition.

Within the above defined parameters we estimate that for the residential classification the cost per kilowatt-hour will increase from 6.0 cents ($0.06) in 1979 as follows:

1980	6.5¢	1985	8.9¢
1981	7.5¢	1986	9.2¢
1982	8.1¢	1987	9.6¢
1983	8.5¢	1988	9.9¢
1984	8.6¢	1989	10.3¢

11. It is unlikely that anything can be done to improve upon the present method of retiring capital credits. General refunds of capital credits are made on a ten-year cycle with the oldest contributed capital

eing retired first. Credits are also paid to settle the estates of eceased patrons.

Having once established a method of retiring capital credits, it ould well present severe legal problems if an attempt were made to hange from a first-in first-out (FIFO) method. Even if there are no egal obstacles to overcome, the only other accepted method is to declare percentage of the total amount to be payable; and this is not without ts own set of administrative problems.

Attachment A
Page 1 of 5

Based Upon Cost of Service Analysis
for Twelve Months Ended December 31, 1979

Line No.	Component	Total Residential Costs	Customer-Related Residential Costs	Demand-Related Residential Costs	Energy-Related Residential Costs
	RATE BASE:				
1.	Total Plant Including Allocated General Plant	$54,615,369	$25,328,207	$ 29,287,162	
2.	Accumulated Depreciation Reserve	8,208,737	3,752,932	4,455,805	
3.	Net Plant	$46,406,632	$21,575,275	$ 24,831,357	
	WORKING CAPITAL:				
4.	Materials & Supplies	919,193	430,353	488,840	
5.	Prepayments	233,709	84,968	148,741	
6.	Cash	1,247,140	249,952	997,188	
7.	Subtotal	2,400,042	765,273	1,634,769	
8.	Construction Work In Progress	2,251,547	1,111,030	1,140,517	
9.	Capital Term Certificates	1,289,035	636,077	652,958	
10.	Consumer Deposits	(1,174,436)	(1,174,436)	-0-	
11.	Total Rate Base	$51,172,820	$22,913,219	$ 28,259,601	
	EXPENSES:				
12.	O & M Including	$20,998,714	$ 239,529	$ 6,369,424	$ 14,389,761
13.	Sales	24,255	24,255		
14.	Customer Accounts	943,944	943,944		
15.	A & G	1,134,242	791,888	342,354	
16.	Depreciation	1,507,111	669,137	837,974	
17.	Taxes - Distribution	602,488	217,093	385,395	
18.	Total Expenses	$25,210,754	$ 2,885,846	$ 7,935,147	$ 14,389,761
19.	Return @ 8.09% of Rate Base	4,139,881	1,853,679	2,286,202	
20.	TOTAL COST (18 + 19)	$29,350,635	$ 4,739,525	$ 10,221,349	$ 14,389,761
21.	UNITS - Consumers		57,068		
	- kWh			465,060,992	465,060,992
22.	Charge		$ 6.92/mo.	$ 0.022/kWh	$ 0.031/kWh

COST OF ELECTRIC SERVICE STUDY

Exhibit M-4.1

RATE OF RETURN - PRESENT RATES

WITHLACOOCHEE RIVER ELECTRIC COOP INC

YEAR ENDING - 12-31-79

LN	ITEM	SYMBL	ALLOC	TOTAL COOPERATIVE	RESIDENTIAL	GEN SERVICE + IRRIGATION	LARGE POWER	LIGHTING SERVICE
	*** RATE OF RETURN ***							
	REVENUES							
01	GROSS REVENUES	REVS		37,212,983	28,154,960	4,742,143	3,482,922	832,958
02	REVENUE TAXES	REVTX		6,629-	5,015-	845-	620-	148-
03	REV & OPER EXP ADJUSTMENTS	RVADJ		425,801	342,674	40,577	19,998	22,553
04	NET OPERATING REVENUES	NREVS		37,632,155	28,492,619	4,781,875	3,502,300	855,363
	OPERATING EXPENSES							
	OPER AND MAINT EXPENSES							
05	PRODUCTION	PRDEX		25,533,151	19,552,142	2,931,685	2,796,946	342,379
06	TRANSMISSION	TRNEX		23,550	18,323	2,774	2,278	175
07	DISTRIBUTION	DSTEX		1,826,713	1,428,249	233,515	149,632	15,316
08	SALES	SALEX		25,857	24,255	1,558	20	24
09	CUSTOMER ACCOUNTS	CACEX		1,006,270	943,944	60,621	778	926
10	ADMIN AND GENERAL	AGNEX		1,329,371	1,134,242	109,429	39,307	46,349
11	TOTAL OPR AND MAINT	TOMEX		29,744,862	23,101,155	3,339,582	2,898,961	405,164
12	DEPRECIATION EXPENSE	DEPEX		1,872,404	1,507,111	178,211	37,448	79,632
13	OTHER EXPENSE ITEMS	OTHEX		197	153	22	17	5
14	TAXES OTHER THAN INCOME	TTXEX		740,812	602,488	68,908	52,531	36,885
15	STATE INCOME TAX(NFT)	SITNT		0	0	0	0	0
16	FEDERAL INCOME TAX ALLOWABLE	FITA		0	0	0	0	0
17	TOTAL OPERATING EXPENSES	TOPEX		32,358,275	25,210,907	3,586,723	3,018,959	541,684
18	RETURN	RTRN		5,273,880	3,281,712	1,195,152	483,341	313,679
	RATE BASE							
19	NET PLANT IN SERVICE	TPLTN		57,779,109	46,406,632	5,532,055	2,757,413	3,083,004
20	PLANT HELD FOR FUTURE USE	PLHFU		0	0	0	0	0
21	WORKING CAPITAL ALLOWANCE	TLWCA		3,005,289	2,400,042	307,238	202,409	95,597
22	OTHER RATE BASE ITEMS	OTRBI		4,410,292	3,940,588	421,217	206,637	241,795
23	RATE BASE EXCLUSIONS	TLRBX		1,251,980-	1,174,436-	75,424-	967-	1,152-
24	RATE BASE ADJUSTMENTS	RBADJ		0	0	0	0	0
25	TOTAL NET RATE BASE	RBS		63,937,645	51,172,820	6,185,086	3,160,492	3,419,264
26	RATE OF RETURN (PCT)	Y		8.248	6.413	19.323	15.293	9.174

Attachment A
Page 2 of 5

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.

Residential
Customer Charge Analysis
Based Upon
Cost of Service Analysis
for Twelve Months Ended December 31, 1979

Line No.	Component	Customer-Related Residential Costs	Indicated Customer Charge
	RATE BASE:		
1.	Distribution Plant & Allocated General Plant	$25,328,207	
2.	Accumulated Depreciation Reserve	3,752,932	
3.	Net Plant	$21,575,275	
	Working Capital:		
4.	Materials & Supplies	430,353	
5.	Prepayments	84,968	
6.	Cash	249,952	
7.	Subtotal	765,273	
8.	Construction Work In Progress	1,111,030	
9.	Capital Term Certificates	636,077	
10.	Consumer Deposits	(1,174,436)	
		$22,913,219	
	EXPENSES:		
11.	O & M Including	$ 239,529	
12.	Sales	24,255	
13.	Customer Accounts	943,944	
14.	A & G	791,888	
15.	Depreciation (Excluding Gen. Plnt.)	669,137	
16.	Taxes-Dist. (Excludes General Plant)	217,093	
17.	Total Expenses	$ 2,885,846	
18.	RETURN @ 8.09% of Rate Base	1,853,679	
19.	TOTAL COST (17 + 18)	$ 4,739,525	
20.	Residential Customers		57,068
21.	Customer Charge		$6.92/month

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Exhibit G

Attachment A
Page 4 of 5

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.

COST OF CAPITAL

Twelve Months Ended December 31, 1979

Line No.	Source of Capital (a)	Component Target Ratio /1 (b)	Component Cost (c)	Weighted Cost (d)
1.	Long-term Debt	70%	4.70% /2	3.29%
2.	Equity	30%	16.0% /3	4.80%
3.	Cost of Capital	100%		8.09%

/1 Based Upon Desired Equity Level of 30%

/2 From Exhibit G-1

/3 Based on "Goodwin" formula:

$$RE = \frac{(1 + g)^n - (1 + g)^{n-1}}{(1 + g)^n - 1} X 100$$

g = capital growth = 12.3% annually

n = capital rotation period = 10 years

Exhibit G-1

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.

COST OF LONG-TERM DEBT

Twelve Months Ended December 31, 1979

Line No.	Source of Debt (a)	Balance As of 12/31/78 (b)	Component Ratio (c)	Component Cost (d)	Weighted Cost (e)
1.	REA 2%	$13,785,599	26.37%	2%	.5274
2.	REA 2% (Accum. Interest)	21,950	0.04%	2%	.0008
3.	REA 5%	30,696,392	58.73%	5%	2.9365
4.	CFC 7%	2,747,797	5.26%	7%	.3682
5.	CFC 9%	4,213,577	8.06%	9%	.7254
6	CFC 9.5%	805,949	1.54%	9.5%	.1463
7	TOTAL	$52,271,264	100.00%		4.7046

Attachment B

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC

Average Number of Consumers Per
Pole Mile of Distribution Line

	WREC /1 (a)	FPC /2 (b)	All Cooperatives /3 (c)
1969	7.48	32.76	3.73
1970	8.20	33.24	3.82
1971	9.21	33.88	3.94
1972	10.53	34.79	4.06
1973	12.22	35.82	4.20
1974	12.63	35.82	4.30
1975	13.06	35.23	4.37
1976	13.63	35.66	4.46
1977	14.44	36.14	4.55
1978	15.69	36.85	4.66
1979	17.01	38.23	N/A /4

Note: WREC - Withlacoochee River Electric Cooperative, Inc.
FPC - Florida Power Corporation

/1 Source: REA Form 7 (December of each year) for WREC

/2 Source: Florida Power Corporation "Ten Year Statistical Report 1969 - 1979"

/3 Source: REA Bulletin 1-1

/4 N/A : Not Available

Attachment C

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.

Average Monthly Residential Usage

(kilowatt-hours)

	WREC /1	Cooperatives /2	FPC /3
1969	438	631	722
1970	496	676	785
1971	559	701	818
1972	642	744	856
1973	715	783	955
1974	653	794	613
1975	880	831	808
1976	690	857	828
1977	735	901	884
1978	748	928	907
1979	679	NA	875

WREC - Withlacoochee River Electric Cooperative
FPC - Florida Power Corporation
NA - Not Available
/1 - From REA Form 7
/2 - From REA Bulletin 1-1
/3 - From Florida Power Corporation "Ten Year Statistical Report 1969-1979"

Attachment D

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.

Comparison of Total Distribution Plant Investment Per kWh Sold (cents)

	Distribution Cooperatives		Investor-Owned Utilities	
Year	WREC /1 (a)	National /2 (b)	National /2 (c)	FPC /3 (d)
1969		7.3	2.9	3.3
1970	11.9	7.0	2.9	3.2
1971	11.6	6.8	2.9	3.1
1972	9.8	6.5	3.1	3.1
1973	10.2	6.4	2.8	3.0
1974	10.9	6.4	3.1	3.4
1975	10.7	6.5	3.3	3.5
1976	10.3	6.5	3.3	3.5
1977	9.9	6.7	3.3	3.4
1978	9.7	6.8	3.4	3.5
1979	10.0	N/A	N/A	3.7

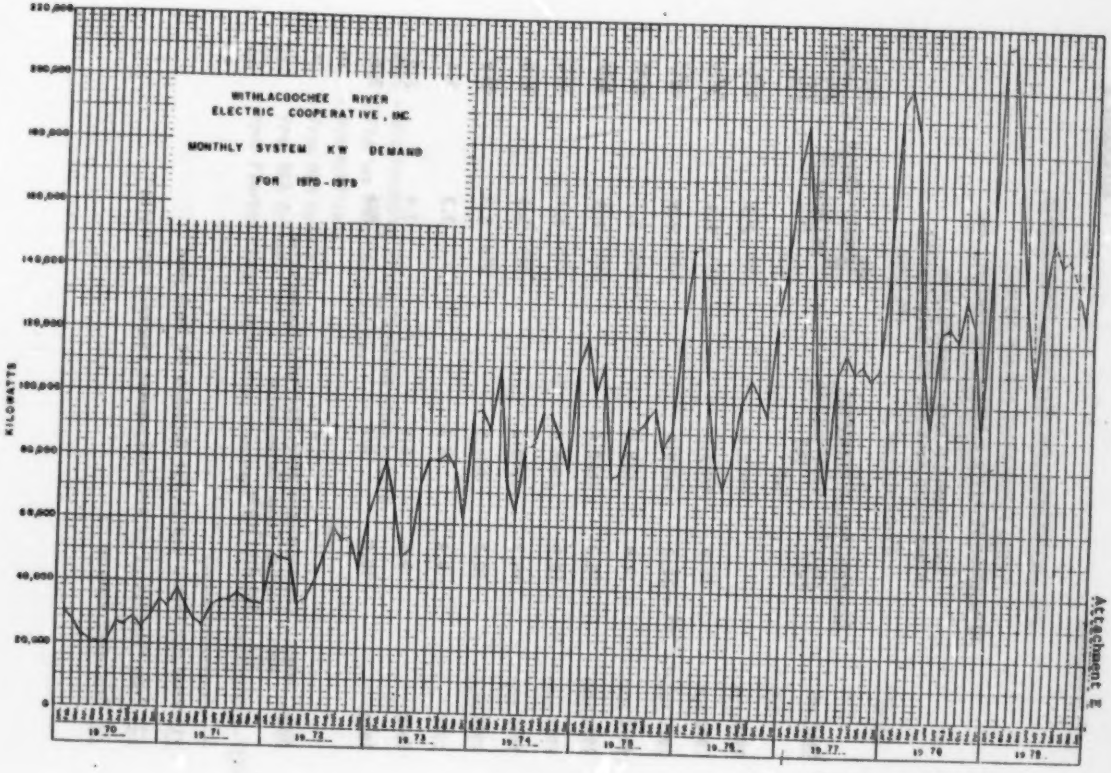
Note: WREC - Withlacoochee River Electric Cooperative
FPC - Florida Power Corporation
N/A - Not Available

/1 From REA Form 7 and 7A for December of each year

/2 From "Statistics of Privately-Owned Electric Utilities"

/3 From FERC Form No. 1

Attachment E



Attachment F

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.

ANNUAL LOAD FACTOR FOR 1970-1979

Load Factor = (Annual Energy ÷ Highest kW Demand) ÷ 8760

YEAR	LOAD FACTOR (%)
1970	42.23
1971	49.95
1972	41.69
1973	41.19
1974	39.38
1975	38.62
1976	36.34
1977	32.50
1978	34.47
1979	35.21

Attachment C

COMPARISONS OF MONTHLY LOAD FACTORS
OF WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE
VERSUS FLORIDA POWER CORPORATION

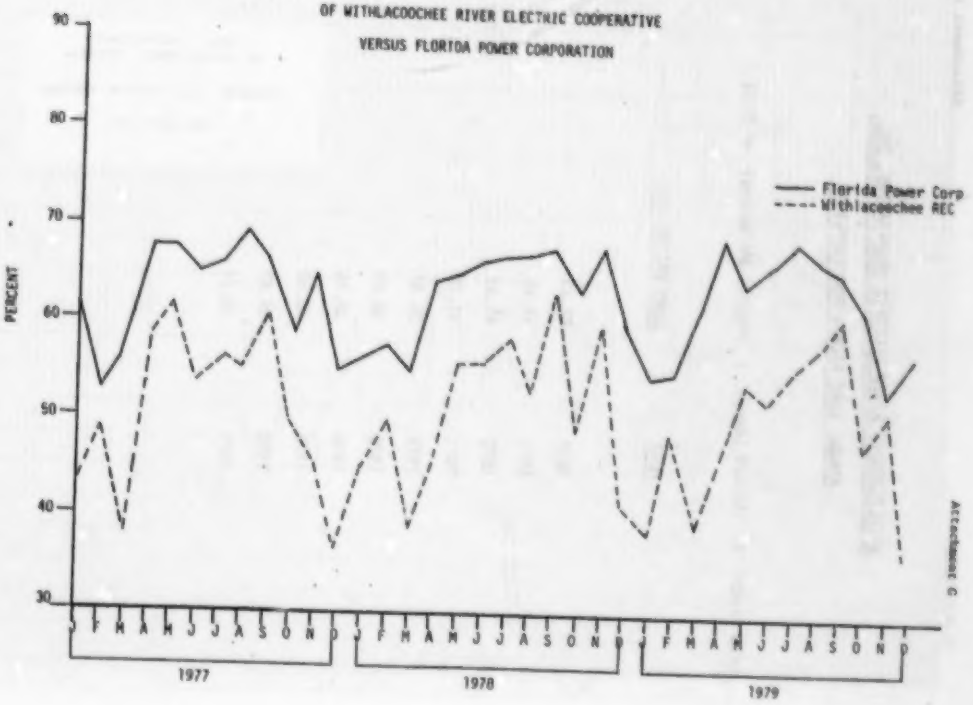


Exhibit H-4.1

C O S T O F E L E C T R I C S E R V I C E S T U D Y

RATE OF RETURN - PRESENT RATES

WITHLACOOCHEE RIVER ELECTRIC COOP INC

YEAR ENDING - 12-31-79

LN	ITEM	SYMBL	ALLOC	TOTAL COOPERATIVE	RESIDENTIAL	GEN SERVICE + IRRIGATION	LARGE POWER	LIGHTING SERVICE
	*** RATE OF RETURN ***							
	REVENUES							
01	GROSS REVENUES	REVS		37,212,983	28,159,960	4,742,143	3,482,922	632,958
02	REVENUE TAXES	REVTX		6,629-	5,015-	845-	620-	149-
03	REV & OPER EXP ADJUSTMENTS	RVADJ		425,801	337,674	40,577	19,998	22,553
04	NET OPERATING REVENUES	NREVS		37,632,155	28,492,619	4,781,875	3,502,300	655,363
	OPERATING EXPENSES							
	OPER AND MAINT EXPENSES							
05	PRODUCTION	PROFX		25,533,151	19,852,142	2,931,685	2,796,946	352,379
06	TRANSMISSION	TRNEX		23,550	18,323	2,779	2,270	175
07	DISTRIBUTION	DSTEX		1,826,713	1,420,249	233,515	149,632	19,316
08	SALES	SALEX		25,857	24,255	1,558	20	24
09	CUSTOMER ACCOUNTS	CACEX		1,006,270	943,944	60,621	778	926
10	ADMIN AND GENERAL	AGNEX		1,329,321	1,134,242	109,429	39,307	46,344
11	TOTAL OPR AND MAINT	TOMEX		29,744,862	23,101,155	3,339,582	2,898,961	405,164
12	DEPRECIATION EXPENSE	DEPEX		1,872,409	1,507,111	170,211	87,448	99,632
13	OTHER EXPENSE ITEMS	OTHEX		197	153	22	19	3
14	TAXES OTHER THAN INCOME	TTXEX		740,812	602,488	68,908	32,531	36,885
15	STATE INCOME TAX(UFT)	SITNT		0	0	0	0	0
16	FEDERAL INCOME TAX ALLOWABLE	FITA		0	0	0	0	0
17	TOTAL OPERATING EXPENSES	TOPEX		32,358,275	25,210,907	3,586,723	3,018,959	541,684
18	RETURN	RTRN		5,273,880	3,281,712	1,195,152	483,341	313,679
	RATE BASE							
19	NET PLANT IN SERVICE	TPLTN		57,779,109	46,404,632	5,532,055	2,752,913	3,083,009
20	PLANT HELD FOR FUTURE USE	PLHFU		0	0	0	0	0
21	WORKING CAPITAL ALLOWANCE	TLWCA		3,085,289	2,408,092	387,238	202,487	95,597
22	OTHER RATE BASE ITEMS	OTRBI		4,418,292	3,540,582	421,217	206,637	241,795
23	RATE BASE EXCLUSIONS	TLRBX		1,251,980-	1,174,436-	75,424-	967-	1,152-
24	RATE BASE ADJUSTMENTS	RBADJ		0	0	0	0	0
25	TOTAL NET RATE BASE	RRB		63,937,645	51,172,820	6,185,086	3,160,492	3,419,244
26	RATE OF RETURN (PCT)	Y		8,248	6,413	19,323	15,293	9,174

Attachment H

Attachment I

WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE , INC.

Summary of
Total Cost of Electric Service
for 1969 and 1979

Line		Twelve Months Ended			
		December 31, 1969		December 31, 1979	
		Amount (a)	Percent (b)	Amount (c)	Percent (d)
	Unmanageable (Fixed)				
1.	Cost of Purchased Power	$ 842,006	41.95%	$25,533,151	73.57%
2.	Depreciation	353,962	17.64%	1,872,404	5.40%
3.	Taxes	178,980	8.92%	747,441	2.15%
4.	Interest Expense	67,448	3.36%	2,339,484	6.74%
5.	Subtotal	1,442,416	71.86%	30,492,480	87.86%
	Manageable - Partially				
6.	Transmission Expense	-0-		23,550	0.07%
7.	Distribution Expense	165,629	8.25%	1,826,713	5.26%
8.	Customer Accts, Sales & Information	220,480	10.98%	1,032,127	2.97%
9.	Administrative & General	176,022	8.77%	1,329,321	3.83%
10.	Other Deductions	2,659	.13%	197	0.01%
11.	Subtotal	564,798	28.14%	4,211,908	12.14%
12.	TOTAL COST OF ELECTRIC SERVICE	$ 2,007,214	100.00%	$34,704,388	100.00%

Attachment J
Page 1 of 19

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

1115 30th STREET, N.W., WASHINGTON, D.C. 20007 • (202) 337-6700

June 16, 1980

M E M O R A N D U M

To: Managers of CFC Distribution Member-Systems

From: Gary A. Gordy, Loan Officer, CFC

Subject: CFC's Key Ratio Trend Analysis, (KRTA) for 7 years Ending December 31, 1979

For the past five years, CFC has provided each distribution member-system with a copy of its Key Ratio Trend Analysis (KRTA). These reports presented up to 7 years of key system, operating, expense and growth ratios beginning with 1971 data. The enclosed report shows ratios for the years 1973 thru 1979.

The format of the printout is designed to allow you to readily determine not only the key financial ratios for your system, but also to determine how the system's ratios and trends rank in comparison with similar systems. To assist with this comparison, the systems have been grouped by consumer size, rate of plant growth, the nation, the state and the major wholesale power supplier, as in prior years.

There are two minor differences between this report and the 1978 KRTA report. These differences are the addition of three (3) modified ratios and the method of calculating the Blended Interest Rate (Ratio 19).

The modified ratios and their corresponding ratio number on the printout are:

Ratio 5-A - Overall required Return on Equity (%) for 20 year Cycle

Ratio 6-A - Overall required Return on Equity (%) for 15 year Cycle.

Ratio 39 - Annual % Compound Rate of Growth in Total Capitalizations.

The method used to calculate Ratio 19 consists of averaging the interest costs of 19xx and 19xx-1 and dividing by the average of 19xx + 19xx-1 long term debt.

Ratios 5-A and 6-A are modified to the extent that the "g" used in the rate of return formula represents the annual compound rate of growth in Total Capitalization experienced by the system for the period December 31, 1973 to December 31, 1979. This compound rate of growth appears on the KRTA as Ratio 39.

The remaining ratios are essentially the same as presented last year.

To assist you in understanding how the various ratios are computed, we have attached a listing of the formulas which includes the factors by name and line item number, as listed and further identified in the 1974 issue of REA Bulletin 1-1 (Annual Statistical Report).

Also attached are two (2) lists identifying the break points and number of systems in the consumer size groupings and the plant growth factor groupings. In the consumer size groupings, it should be noted that the average number of consumers served in 1979 in the deciding factor in placing your cooperative within a certain group, for the entire 7 years. Your cooperative's ratios are then compared with those of other systems within that same group for each year shown. Likewise, the average compound rate of growth in plant from 1973 to 1979 determines the group of cooperatives whose ratios are compared for each year shown.

If you have any questions or comments concerning this years's KRTA, please contact the CFC Area Representative in your area or the Loan Department at CFC's Washington Office. We will be happy to review or explain any facet of the KRTA at your convenience.

Enclosures: Your system's 1979 KRTA printout
Ratios Formulation List
Consumer Size Grouping List
Plant Growth Factor Grouping List
List of Line item numbers and name from
1974 Bulletin 1-1.

CFC KEY RATIO TREND ANALYSIS
for 7 years ending
December 31, 1979

Ratio Name	Formulation*** (1974 Bulletin 1-1 Line Numbers)
"EARNINGS & RETURN RATIOS"	
Ratio 1 TIER	= (50) Net margins + (48) Interest on long term debt ÷ (48) Interest on long-term debt
Ratio 2 DSC	= (89)(Insert decimal if necessary)
Ratio 3 Rate of Return on 1.1 x Net Plant(%)	= "100" x (44) Utility Operating Margin ÷ [(16) Net Utility Plant x "1.1"]
Ratio 4 Rate of Return on Equity (%)	= [(44) Utility Operating Margins - (48) Interest on Long Term Debt Net] ÷ (25) Total Equity x "100"
Ratio 5 Required Return on Equity (%) for 20 Year Revolving Cycle	= $\frac{(1 + g)^{21} - (1 + g)^{20}}{(1 + g)^{20} - 1}$ x "100"*
Ratio 5-A Overall Required Return on Equity For 20 Year Cycle	= $\frac{(1 + g)^{21} - (1 + g)^{20}}{(1 + g)^{20} - 1}$ x "100"****
Ratio 6 Required Return on Equity (%) for 15 Year Revolving Cycle	= $\frac{(1 + g)^{16} - (1 + g)^{15}}{(1 + g)^{15} - 1}$ x "100"*
Ratio 6-A Overall Required Return on Equity For 15 Year Cycle	= $\frac{(1 + g)^{16} - (1 + g)^{15}}{(1 + g)^{15} - 1}$ x "100"****
Ratio 7 Net Margins (Less Assoc. Org. Capital Credits) (%) of Revenue	= "100" x [(50) Net Margins - (46) G&T CC- (47) Other CC] ÷ (34) Operating Revenue
Ratio 8 Net Margins Per KWH Sold (Mills)	= (50) Net Margins ÷ (67) MWH Sales

CFC KEY RATIO TREND ANALYSIS
for 7 years ending
December 31, 1979

Ratio Name	Formulation*** (1974 Bulletin 1-1 Line Numbers)
Ratio 9 Growth in Operating Expenses After Power Costs (%)	$= \dfrac{[(35)_{19xx} - (36)_{19xx}] - [(35)_{19xx-1} - (36)_{19xx-1}]}{[(35)_{19xx-1} - (36)_{19xx-1}]} \times "100"$
Ratio 10 Power Cost Per KWH Purchased (Mills)	= (36) Cost of Power ÷ [(85) MWH Generated + (86) MWH Purchased]
Ratio 11 O & M Expenses Per KWH Sold (Mills)	= [(37) Distr. Expense Operation + (38) Distr. Expense Maintenance] ÷ (67) MWH Sales
Ratio 12 O & M Expenses as % of Total Plant	= "100" x [(37) Dist. Expense Operation + (38) Dist. Expense Maintenance] ÷ (14) Total Utility Plant
Ratio 13 Administrative & General Expenses (% of Plant)	= (40) Administrative & General Expense ÷ (14) Total Utility Plant x "100"
Ratio 14 Consumer Service & Sales Expense ($ per consumer)	= (41) Sales Expense** ÷ (59) # of Consumers
Ratio 15 Consumer Accounting Expenses/ Consumer ($ Per Year)	= (39) Consumer Accounting ÷ (59) # of Consumers
Ratio 16 Interest Expense as % of Revenue less Power Costs	= (48) Interest on LTD ÷[(34) Revenue-(36) Power Costs] x "100"
Ratio 17 Interest Expense Per KWH Sold (Mills)	= (48) Interest on Long Term Debt Net ÷ (67) MWH Sales
Ratio 18 Interest Cost Per Dollar of Total Plant Investment (%)	= "100" x (48) Interest on Long Term Debt Net ÷ (14) Total Utility Plant

CPU KEY RATIO TREND ANALYSIS
for 7 years ending
December 31, 1979

Ratio Name		Formulation*** (1974 Bulletin 1-1 Line Numbers
Ratio 19 Blended Interest Cost on Long-Term Debt (%)	=	$$\text{"100"} \times \frac{\left[\dfrac{(48)\ \text{Interest on LTD 19xx} + (48)\ \text{Interest on LTD 19xx-1}}{2}\right]}{\left[\dfrac{(26)\ \text{REA Debt 19xx} + (27)\ \text{other LTD 19xx} + (26)\ \text{REA Debt 19xx-1} + (27)\ \text{other LTD 19xx-1}}{2}\right]}$$
Ratio 20 Operating Expenses (Less Power Costs) Per KWH Sold (Mills)	=	$\left[(35)\ \text{Total Operating Expense} - (36)\ \text{Cost of Power}\right] \div (67)\ \text{MWH Sales}$
Ratio 21 Ratio of Actual to Optimum (Modified) Depreciation Reserve		

$$= \text{Formulation} = \frac{Y_A}{Y_O}\ ;\ \text{Where:}$$

$$Y_A = \text{Actual Reserve Percentage} = \frac{\text{"100"} \times (15)\ \text{Accum. Prov. Depreciation \& Amortization}}{(14)\ \text{Total Utility Plant}}$$

Y_O = Optimum Reserve Percentage as determined from the Guideline Curve of REA Bulletin 183-1 (page 7) after determing XX = Compound rate of growth in Plant from 1974 to 1979; or

$$Y_O = A + BX + CX^2 + DX^3$$

where:

$$X = \frac{(14)\ 1979\ \text{Total Utility Plant}}{(14)\ 1974\ \text{Total Utility Plant}}$$

$A = 170.472$
$B = -216.38$
$C = 101.232$
$D = -16.1373$

CFC KEY RATIO TREND ANALYSIS
for 7 years ending
December 31, 1979

Ratio Name		Formulation*** (1974 Bulletin 1-1 Line Numbers)
Ratio 22 Consumers Per Full Time Employee	=	(59) # of Consumers ÷ (79) Full Time employees
"REVENUES RATIOS"		
Ratio 23 Electric Energy Recenue Per KWH Sold (Cents)	=	(75) Total Electric Revenue ÷ [(67) MWH Sales x "10"]
Ratio 24 Revenue Per Residential KWH Sold (Cents)	=	(69) Revenue, Farm & Nonfarm ÷ [(61) MWH Sales, Farm & Nonfarm x "10"]
Ratio 25 Revenue Less Power Cost (Spread) Per KWH Sold (Mills)	=	[(34) Operating Revenue - (36) Cost of Power)] ÷ (67) MWH Sales
"EQUITY/DEBT RATIOS"		
Ratio 26 Equity Level as % of Total Assets	=	"100" x (25) Total Equity ÷ (21) Total Assets
Ratio 27 Equity Level as % of Total Capitalization	=	"100" x (25) Total Equity ÷ [(25) Total Equity, + (26) REA Long Term Debt + (27) Other Long Term Debt]
Ratio 28 Long-Term Debt as % of Net Plant	=	"100" x[(26) REA Long Term Debt + (27) Other Long Term Debt] ÷ (16) Net Utility Plant
Ratio 29 Non-REA Debt as % of Total Debt	=	"100" x (27) Other Long Term Debt ÷ [(26) REA Long Term Debt + (27) Other Long Term Debt]
"PLANT RATIOS"		
Ratio 30 Investment Per KWH Sold(Cents)	=	(14) Total Utility Plant ÷ [(67) MWH Sales x "10"]

CFC KEY RATIO TREND ANALYSIS
for 7 years ending
December 31, 1979

Ratio Name		Formulation*** (1974 Bulletin 1-1 Line Numbers)
Ratio 31 Revenue (Less Cost of Power) as % of Plant	=	"100" x [(34) Operating Revenue - (36) Cost of Power] + (14) Total Utility Plant
Ratio 32 Investment (Total Utility Plant Per Consumer (1,000 Dollars)	=	[(14) Total Utility Plant + (59) # of Consumers] x ".001"
Ratio 33 Line Loss (%)	=	"100" x ["1" - ((67) MWH Sales]+[(85) MWH Generated + (86) MWH Purchased)]
Ratio 34 Annual Investment in Total Utility Plant as % of Net Plant	=	[(14) 19xx - (14) 19XX-1] + (16) Net Plant19XX
"GROWTH RATIOS"		
Ratio 35 Annual % Growth in # of Consumers	=	"100" x [(59)19xx # of Consumers - (59)$_{19xx-1}$ # of Consumers] + (59)$_{19xx-1}$ #of Consumers
Ratio 36 Annual % Growth in Total Utility Plant	=	"100" x [(14)$_{19xx}$ Total Utility Plant-(14)19xx-1 Total Utility Plant]+ (14)$_{19xx-1}$ Total Utility Plant
Ratio 37 Annual % Growth in KWH Sold	=	"100" x [(67)$_{19xx}$ MWH Sales - (67)19xx-1 MWH Sales] + (67)19xx-1 MWH Sales
Ratio 38 Annual % Growth in Total Capitalization		

$$= \frac{[(25)_{19xx} + (26)_{19xx} + (27)_{19xx}] - [(25)_{19xx-1} + (26)_{19xx-1} + (27)_{19xx-1}]\ x100}{[(25)_{19xx-1} + (26)_{19xx-1} + (27)_{19xx-1}]}$$

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CFC KEY RATIO TREND ANALYSIS
For 7 years ending
December 31, 1979

	Ratio Name		Formulation*** (1974 Bulletin 1-1 Line Numbers)
Ratio 39	Overall Annual % Compound Rate of Growth in Total Capitalization	=	$\left[\frac{(25)\ 19xx + (26)\ 19xx + (27)\ 19xx}{(25)\ 19xx-6 + (26)\ 19xx-6 + (27)19xx-6}\right]^{1/6}$

* Where (g) = $\frac{\text{Ratio 38 - Annual \% Growth in Total Capitalization}}{\text{"100"}}$

** Beginning with 1977 data, Sales Expense includes also Customer Service & Informational Expense.

*** "100" = The literal "100"
(44) = The value of item 44 described in Bulletin 1-1 of 1974

**** Where (g) = $\frac{\text{Ratio 39-Annual \% Compound Rate of Growth in Total Capitalization}}{\text{"100"}}$

1979 KRTA

Consumer Size - Criteria used to Determine Groupings	# of Systems in Group
Under 1,000	19
1,000 to 2,499	93
2,500 to 3,999	160
4,000 to 5,999	143
6,000 to 8,999	147
9,000 to 11,999	107
12,000 to 14,999	75
15,000 to 19,999	74
20,000 to 24,999	30
25,000 to 29,999	27
OVER 30,000	33

1979 KRTA

PLANT GROWTH FACTOR - Criteria used to Determine Groupings

Average Compound Rate of Growth 1973 to 1979	# of Systems in Group
Negative Compound Rate	
0 to 1%	1
1% to 2%	3
2% to 3%	4
3% to 4%	16
4% to 5%	38
5% to 6%	74
6% to 7%	105
7% to 8%	125
8% to 9%	145
9% to 10%	119
10% to 12%	157
12% to 14%	63
14% to 16%	30
16% to 18%	13
18% to 20%	7
OVER 20%	7

DATA FIELDS USED
IN KRTA COMPUTATIONS
(SEE FORMULATION SHEETS)

1974 Bulletin 1-1 Line Item Number	Item Description	Corresponding 1979 Bulletin 1-1 Line Item Number /1
14	Total Utility Plant	14
15	Accumulated Provisions of Depreciation and Amortization	15
16	Net Utility Plant	16
21	Total Assets and Other Debits	21
25	Total Equity	25
26	REA Long-Term Debt	26
27	Other Long-Term Debt	27
34	Operating Revenue and Patronage Capital	33
35	Operating Deductions Total	34
36	Cost of Power	35
37	Distribution Expense Operation	36
38	Distribution Expense Maintenance	37
39	Consumer Accounts	38
40	Administration and General Expense	40

1/ For years 1973, 1975, 1976, 1977 and 1978 use the Item Description to locate the values used in the formulation of each Ratio.

DATA FIELDS USED IN KRTA COMPUTATIONS (SEE FORMULATION SHEETS)

1974 Bulletin 1-1 Line Item Number	Item Description	Corresponding 1979 Bulletin 1-1 Line Item Number /1
41	Sales Expense	39 + 41 /2
44	Utility Operating Margins	44
46	Generation and Transmission Capital Credits	46
47	Other Capital Credits and Patronage Capital	47
48	Interest on Long-Term Debt	48
50	Net Margins and Patronage Capital	50
59	Total Number of Consumers Served	59
61	Residential Service Farm and Nonfarm (MWH)	61
67	Total MWH Sold	67
69	Residential Service Farm and Nonfarm (Revenues)	69
75	Total Sales of Electric Energy	75
79	Full-Time Employees	79
85	MWH Generated	85
86	MWH Purchased	86
89	Debt Service Coverage	89

2/ Beginning in 1977, the value of this item equaled the sum of Consumer Service and Information Expense plus Sales Expense.

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6/80                CFC'S KEY RATIO TREND ANALYSIS FOR FLORIDA                033

YR    SYSTEM        US TOTAL          STATE GROUPINGS      CONSUMER SIZE      MAJ CUR PWR SUPPLIER   PLANT GROWTH (79/73)
      VALUE     MEDIAN  NBR RNK       MEDIAN  NBR RNK      MEDIAN  NBR RNK    MEDIAN  NBR RNK        MEDIAN  NBR RNK

*** EARNINGS & RETURN RATIOS ***

RATIO 1 - - - TIER
73      .58      3.68  905 892          2.98   15  15         3.25   33  33       2.68   10  10          3.12   63  61
74     1.73      2.87  907 718          3.06   15  13         1.69   33  21       2.47   10   9          2.55   63  47
75     1.78      2.57  908 687          2.48   15  12         2.80   33  27       2.02   10   8          2.15   63  48
76     1.67      2.72  909 734          1.87   15  13         2.64   33  29       1.97   10  10          [illegible]   63  54
77     2.17      2.87  909 619          2.59   15   9         2.17   33  17       2.11   10   6          2.59   63  41
78     2.39      2.67  910 522          2.39   15   8         2.16   33  16       1.99   10   5          2.25   63  29
79     2.30      2.66  912 5[illegible]          [illegible]   15   6         2.16   33  16       2.24   10   4          2.16   63  20

RATIO 2 - - - DSC
73     1.38      1.93  903 787          1.92   15  14         2.24   33  32       1.92   10  10          1.94   63  55
74     1.97      1.76  907 356          1.90   15   7         1.97   33  17       1.97   10   5          1.84   63  28
75     1.99      1.76  907 334          1.89   15   7         2.15   33  22       1.99   10   5          1.72   63  33
76     1.84      1.81  906 484          1.81   15   6         2.31   33  25       1.81   10   4          2.02   63  41
77     2.11      2.01  907 411          2.11   15   8         2.17   33  18       2.11   10   5          2.10   63  31
78     2.23      1.94  908 322          2.23   15   8         2.18   33  14       2.23   10   5          1.97   63  24
79     2.18      1.94  909 339          2.07   15   7         2.14   33  18       2.07   10   4          1.91   63  18

RATIO 3 - - - RATE OF RETURN ON 1.1 X NET PLANT (%)
73      .94      4.02  907 878          2.98   15  15         3.92   33  33       4.32   10  10          4.22   63  60
74     4.44      3.62  907 382          4.21   15   5         3.03   33   8       4.38   10   4          3.88   63  24
75     5.47      3.72  908 165          4.60   15   6         5.04   33  13       5.09   10   4          4.08   63  16
76     5.32      4.30  909 283          4.76   15   5         5.05   33  12       5.00   10   3          5.00   63  21
77     6.79      4.59  909 158          6.79   15   8         5.08   33   9       6.79   10   5          4.79   63  12
78     7.21      4.62  910 109          6.54   15   6         4.84   33   6       7.20   10   4          4.79   63   9
79     7.28      4.58  912  98          5.31   15   3         4.77   33   7       6.11   10   2          4.25   63   6

RATIO 4 - - - RATE OF RETURN ON EQUITY (%)
73    11.38-     6.99  907 901         12.34   15  15         7.56   33  22      13.48   10  10          8.69   63  63
74    20.11      5.65  907  29          8.74   15   2         4.23   33   3      12.51   10   1          7.36   63   5
75    22.15      5.44  908  21         11.11   15   1        10.43   33   2      11.75   10   1          7.12   63   4
76    17.44      6.43  909  54          9.48   15   2        10.11   33   5      12.34   10   2         13.08   63  12
77    25.50      6.64  909  22         11.70   15   2         7.33   33   1      13.36   10   1          9.14   63   1
78    25.05      6.45  910  23         13.17   15   1         8.68   33   3      16.63   10   1          8.94   63   3
79    20.92      5.88  912  33          8.33   15   1         8.95   33   2      10.22   10   1          7.20   63   6

RATIO 5 - - - REQUIRED RETURN ON EQUITY (%) FOR 20 YEAR REVOLVING CYCLE
74    24.14     11.00  905  42         14.02   15   2        12.99   33   4      17.05   10   2         14.01   63   8
75    19.04     10.48  907  83         12.27   15   1        11.57   33   3      12.27   10   1         14.58   63  15
76     7.94     10.65- 908 708          9.79   15  11        11.00   33  27      10.46   10   8         12.48   63  55
77    11.35     11.27  909 445         10.77   15   7        11.06   33  19      11.35   10   5         14.93   63  47
78    15.20     11.18  908 204         13.26   15   4        18.90   33  12      14.49   10   4         15.30   63  33
79    13.15     12.15  907 375         13.12   15   7        15.34   33  21      13.15   10   5         15.76   63  41

RATIO 5-A - - OVERALL REQUIRED RETURN ON EQUITY (%) FOR 20 YEAR CYCLE
73
TO    14.73     11.60  907 145         12.99   15   3        12.41   33   7      13.86   10   3         15.40   63  44
79
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6/80                CFC'S KEY RATIO TREND ANALYSIS FOR FLORIDA              033

YR   SYSTEM      US TOTAL           STATE GROUPINGS        CONSUMER SIZE        MAJ CUS PWR SUPPLIER     PLANT GROWTH (78/73)
     VALUE    MEDIAN   NBR RNK      MEDIAN   NBR RNK      MEDIAN   NBR RNK      MEDIAN   NBR RNK         MEDIAN   NBR RNK

RATIO 6 - - - REQUIRED RETURN ON EQUITY (%) FOR 15 YEAR REVOLVING CYCLE
74   24.02    12.52  905  42     15.27   15   2       14.20   33   4       10.05   10   2          18.01   63   5
75   15.58    11.90  907  83     13.63   15   1       12.90   33   3       13.63   10   1          15.90   63  18
76    9.55    12.13  908 503     11.31   15  11       12.45   33  27       11.64   10   6          13.81   63  55
77   12.78    12.70  909 444     12.33   15   7       13.60   33  19       12.70   10   5          16.12   63  47
78   16.30    12.63  909 202     14.56   15   4       14.70   33  12       15.71   10   4          16.30   63  32
79   14.46    13.53  907 375     16.43   15   7       16.80   33  21       14.40   10   5          16.95   63  41

RATIO 6-A - - OVERALL REQUIRED RETURN ON EQUITY (%) FOR 15 YEAR CYCLE
73
78   15.93    13.81  907 148   . 14.31   15   3       13.76   33   7       15.18   10   3          16.87   63  45
79

RATIO 7 - - - NET MARGINS (LESS ASSOC. ORG. CAPITAL CREDITS) % OF REVENUE
73    3.31-    9.70  906 800      9.00   15  15        7.00   33  30       11.41   10  10          10.04   63  52
74    6.58     7.42  907 621      8.00   15  12        4.20   33  16        8.00   10   8           8.27   63  42
75    6.27     5.93  908 436      6.43   15   9        5.00   33  16        7.05   10   6           5.84   63  30
76    5.32     6.34  909 545      5.43   15   9        5.66   33  16        5.82   10   7           8.30   63  47
77    7.72     6.19  909 374      7.72   15   8        6.17   33   9        7.72   10   5           7.04   63  37
78    8.33     5.61  910 249      6.35   15   9        3.90   33   6        6.55   10   6           5.61   63  20
79    7.00     5.26  912 341      6.36   15   5        3.62   33   6        6.73   10   3           5.30   63  20

RATIO 8 - - - NET MARGINS PER KWH SOLD (MILLS)
73     .09-    3.40  906 800      3.08   15  15        1.48   33  33        3.57   10  10           3.17   63  52
74    2.27     1.90  907 487      2.35   15   8         .93   33   6        2.60   10   7           1.69   63  39
75    2.63     1.88  908 358      2.03   15   6        1.05   33  11        2.80   10   6           1.90   63  16
76    2.53     2.27  909 406      2.10   15   9        2.20   33  13        2.77   10   7           2.44   63  31
77    4.19     2.96  909 191      3.07   15   6        2.11   33   4        3.88   10   4           2.61   63  14
78    4.08     2.63  910  93      4.33   15   5        1.94   33   3        4.68   10   4           2.70   63   9
79    4.56     2.74  912 126      3.40   15   6        2.45   33   5        4.53   10   4           3.00   63  10

*** EXPENSE RATIOS ***

RATIO 9 - - - GROWTH IN OPERATING EXPENSES AFTER POWER COSTS (%)
74   10.01    11.11  907 125     14.33   15   4       10.01   33   7       10.00   10   4          13.05   63  14
75    9.51    12.70  907 632     15.52   15  14       11.34   33  23       15.92   10   9          16.03   63  58
76   16.41     9.59  908 133     14.00   15   5       11.27   33   9       16.15   10   4          14.00   63  21
77    4.05    11.38  909 823     13.05   15  13       11.01   33  31       13.06   10   9          12.89   63  58
78   11.24    11.18  909 453     11.38   15   9       12.39   33  21       11.35   10   6          14.27   63  47
79   13.83    11.82  910 330     10.43   15   4       11.81   33  13       11.30   10   4          14.01   63  33

RATIO 10 - - - POWER COST PER KWH PURCHASED (MILLS)
73   12.09     9.12  907  75     11.58   15   2        9.38   33   5       11.07   10   2           8.81   63   5
74   22.09    11.11  907  16     19.13   15   2       13.41   33   3       20.41   10   1          10.78   63   2
75   24.40    15.26  908  36     22.43   15   3       16.94   33   3       22.43   10   1          13.02   63   4
76   25.50    17.32  909  52     24.23   15   3       18.02   33   5       24.05   10   3          15.03   63   3
77   31.77    19.64  909  18     26.77   15   2       22.08   33   2       26.07   10   2          17.05   63   3
78   34.04    21.80  910  26     30.81   15   3       25.45   33   3       29.88   10   3          20.05   63   3
79   36.53    24.63  912  22     33.08   15   3       28.24   33   3       33.08   10   3          23.48   63   3
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6/80 CFC'S KEY RATIO TREND ANALYSIS FOR FLORIDA 033

YR	SYSTEM VALUE	US TOTAL MEDIAN	US TOTAL NOS	US TOTAL RNK	STATE GROUPINGS MEDIAN	STATE GROUPINGS NOS	STATE GROUPINGS RNK	CONSUMER SIZE MEDIAN	CONSUMER SIZE NOS	CONSUMER SIZE RNK	MAJ CUR PWR SUPPLIER MEDIAN	MAJ CUR PWR SUPPLIER NOS	MAJ CUR PWR SUPPLIER RNK	PLANT GROWTH (73/78) MEDIAN	PLANT GROWTH (73/78) NOS	PLANT GROWTH (73/78) RNK
RATIO 11 - - - O & M EXPENSES PER MWH SOLD (MILLS)																
73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RATIO 12 - - - O & M EXPENSES AS % OF TOTAL PLANT																
73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RATIO 13 - - - ADMINISTRATIVE & GENERAL EXPENSES (% OF PLANT)																
73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RATIO 14 - - - CONSUMER SERVICE & SALES EXPENSE ($ PER CONSUMER)																
73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RATIO 15 - - - CONSUMER ACCOUNTING EXPENSES/CONSUMER ($ PER YEAR)																
73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RATIO 16 - - - INTEREST EXPENSE AS % OF REVENUE LESS POWER COSTS																
73	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
74	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
76	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
77	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
78	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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6/80                 CFC'S KEY RATIO TREND ANALYSIS FOR FLORIDA              033

YR    SYSTEM      US TOTAL          STATE GROUPINGS        CONSUMER SIZE         MAJ CUR PWR SUPPLIER      PLANT GROWTH (79/73)
      VALUE     MEDIAN  NBR RNK     MEDIAN   NBR RNK     MEDIAN   NBR RNK        MEDIAN   NBR RNK          MEDIAN   NBR RNK

RATIO 17 - - - INTEREST EXPENSE PER KWH SOLD (MILLS)
73    2.14         .90  905  43       1.09    15   2        .92    33   2          1.88    10   3              .99    63   5
74    3.05        1.04  907  19       1.71    15   2       1.09    33   1          2.42    10   1             1.17    63   3
75    3.63        1.22  908  15       1.95    15   2       1.20    33   1          2.97    10   2             1.44    63   3
76    3.77        1.28  908  14       1.98    15   3       1.28    33   1          3.12    10   3             1.69    62   4
77    3.54        1.40  909  31       2.05    15   4       1.37    33   1          3.14    10   3             1.71    63   4
78    3.51        1.51  910  48       2.41    15   5       1.58    33   2          3.39    10   4             1.94    63   5
79    3.83        1.77  912  68       2.97    15   6       1.87    33   3          3.83    10   8             2.46    63   8

RATIO 18 - - - INTEREST COST PER DOLLAR OF TOTAL PLANT INVESTMENT (%)
73    1.82        1.00  905   5       1.29    15   1       1.28    33   1          1.48    10   1             1.12    63   2
74    2.52        1.11  907   3       1.88    15   1       1.45    33   2          1.85    10   1             1.21    63   2
75    2.99        1.25  908   3       2.07    15   1       1.60    33   1          2.14    10   1             1.44    63   1
76    3.19        1.36  909   3       2.18    15   1       1.78    33   1          2.30    10   1             1.68    63   1
77    3.13        1.45  909   7       2.36    15   1       2.02    33   2          2.53    10   1             1.81    63   1
78    3.07        1.60  910  16       2.49    15   1       2.07    33   4          2.75    10   1             1.83    62   3
79    3.31        1.77  912  21       2.84    15   1       2.29    33   4          2.84    10   1             2.23    63   3

RATIO 19 - - - BLENDED INTEREST COST ON LONG-TERM DEBT (%)
74    3.42        2.17  906  16       2.75    15   1       2.57    33   2          2.88    10   1             2.18    63   2
75    3.78        2.54  907  24       2.92    15   1       3.02    33   3          3.30    10   1             2.74    63   5
76    4.02        2.79  908  38       3.35    15   2       3.21    33   3          3.55    10   1             3.17    63   8
77    4.14        3.05  908  63       3.69    15   2       3.53    33   4          3.71    10   1             3.52    63  11
78    4.25        3.39  909 112       3.98    15   4       3.71    33   7          4.13    10   3             3.51    63  22
79    4.66        3.62  910  94       4.34    15   4       4.22    33   8          4.45    10   3             4.18    63  12

RATIO 20 - - - OPERATING EXPENSES (LESS POWER COSTS) PER KWH SOLD (MILLS)
73   11.30        9.32  907 252       9.14    15   6       6.71    33   2         11.30    10   5             8.92    63  18
74   11.94        9.63  907 228      10.03    15   6       7.18    33   5         11.94    10   5             9.40    63  13
75   11.09       10.02  908 263      10.45    15   7       7.79    33   4         12.13    10   6             9.84    63  18
76   12.14        9.96  909 240      10.65    15   7       7.96    33   4         13.00    10   6             9.88    63  12
77   10.98       10.34  909 391      11.08    15   9       8.07    33   5         12.48    10   6            10.02    63  20
78   10.04       10.04  910 454      11.93    15  12       8.51    33   7         11.93    10   8            10.60    63  30
79   11.14       11.65  912 515      12.84    15  13       9.04    33  11         12.84    10   9            11.47    63  30

RATIO 21 - - - RATIO OF ACTUAL TO OPTIMUM (MODIFIED) DEPRECIATION RESERVE
73     .80        1.87  907 884        .95    15  10       1.23    33  29           .95    10   7             1.90    63  63
74     .79        1.66  907 884        .95    15  11       1.23    33  28           .95    10   7             1.90    63  62
75     .82        1.63  907 882        .98    15  10       1.24    33  26           .98    10   7             1.80    63  62
76     .83        1.59  907 882       1.00    15  11       1.26    33  27          1.00    10   6             1.69    63  62
77     .86        1.56  907 873       1.03    15  11       1.24    33  26          1.03    10   8             1.59    63  62
78     .88        1.52  907 873       1.06    15  10       1.23    33  27          1.06    10   7             1.52    63  63
79     .91        1.48  907 867       1.09    15  10       1.24    33  27          1.06    10   7             1.43    63  61

RATIO 22 - - - CONSUMERS PER FULL TIME EMPLOYEE
73  109.04      176.19  903 836     149.08    15  15     194.75    32  32        144.38    10  10           157.21    62  55
74  126.96      177.65  925 787     161.13    15  14     201.73    33  33        157.32    10   9           160.13    62  51
75  149.17      182.67  935 683     170.82    15  12     213.21    33  33        166.94    10   8           167.08    62  40
76  158.32      187.07  936 649     173.14    15  12     217.05    33  31        169.41    10   8           165.90    62  38
77  168.95      190.03  936 597     178.67    15   9     218.10    33  30        168.98    10   5           169.73    62  32
78  173.70      192.57  937 578     181.74    15   9     220.52    33  31        173.70    10   5           170.35    62  30
79  188.15      193.57  939 497     186.51    15   7     222.17    33  29        186.51    10   4           177.00    62  28
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6/80               CFC'S KEY RATIO TREND ANALYSIS FOR FLORIDA           833

YR    SYSTEM       US TOTAL          STATE GROUPINGS         CONSUMER SIZE        MAJ CUR PWR SUPPLIER     PLANT GROWTH (78/73)
      VALUE     MEDIAN   NBR RNK     MEDIAN   NBR RNK      MEDIAN   NBR RNK      MEDIAN   NBR RNK        MEDIAN   NBR RNK

*** REVENUE RATIOS ***

RATIO 23 - - - ELECTRIC ENERGY REVENUE PER KWH SOLD (CENTS)
73     2.67       2.24  904 139       2.87     15   8        2.03     33   4       2.85     10   8         2.31     63   9
74     4.14       2.44  907  20       3.35     15   3        2.37     33   2       3.88     10   3         2.40     63   3
75     4.42       2.80  908  33       4.05     15   4        2.84     33   3       4.26     10   4         2.69     63   3
76     4.83       3.16  909  50       4.27     15   5        3.10     33   4       4.63     10   5         3.13     63   5
77     5.25       3.46  909  38       4.60     15   6        3.26     33   3       5.25     10   5         3.35     63   4
78     5.64       3.79  910  37       5.05     15   4        3.63     33   3       5.59     10   4         3.70     63   4
79     6.03       4.19  912  48       5.54     15   6        4.14     33   3       6.03     10   5         4.08     63   4

RATIO 24 - - - REVENUE PER RESIDENTIAL KWH SOLD (CENTS)
73     2.65       2.38  907 314       2.65     15   8        2.13     33   4       2.78     10   8         2.30     63  14
74     4.17       2.56  907  25       3.51     15   3        2.45     33   3       3.82     10   3         2.53     63   3
75     4.47       2.91  908  34       4.11     15   2        2.91     33   3       4.25     10   2         2.94     63   3
76     4.68       3.27  909  56       4.40     15   4        3.17     33   3       4.58     10   4         3.25     63   6
77     5.29       3.60  909  44       4.83     15   4        3.51     33   2       5.17     10   3         3.41     63   4
78     5.63       3.94  910  50       5.09     15   3        3.75     33   2       5.50     10   3         3.84     63   4
79     6.02       4.35  912  60       5.83     15   4        4.15     33   2       5.97     10   3         4.23     63   4

RATIO 25 - - - REVENUE LESS POWER COST  (SPREAD)  PER KWH SOLD (MILLS)
73    12.35      12.19  907 436      13.22     15   9        9.45     33   7      14.33     10   7        12.13     63  29
74    17.12      12.27  907 100      14.42     15   5        9.29     33   1      16.90     10   4        12.18     63   7
75    18.04      12.76  908  97      15.65     15   5       10.66     33   2      18.02     10   4        13.39     63   7
76    18.13      13.34  909 130      16.79     15   7       11.00     33   3      18.62     10   6        13.57     63   8
77    18.29      13.87  909 143      17.08     15   6       11.38     33   2      18.29     10   5        14.09     63   9
78    18.65      14.47  910 164      18.32     15   7       12.23     33   3      18.65     10   5        14.57     63  11
79    19.07      15.28  912 212      18.97     15   7       13.86     33   4      19.29     10   6        15.80     63  12

*** EQUITY / DEBT RATIOS ***

RATIO 26 - - - EQUITY LEVEL AS % OF TOTAL ASSETS
73     8.17      33.37  907 872      20.91     15  14       26.97     33  32      20.91     10  10        26.24     63  60
74     8.63      33:27  907 869      20.68     15  14       25.33     33  30      19.38     10  10        25.23     63  59
75    10.18      33.01  908 858      21.67     15  14       30.58     33  30      20.45     10  10        22.16     63  59
76    11.11      32.68  909 851      24.00     15  14       31.70     33  31      20.71     10  10        24.08     63  56
77    13.13      32.03  909 837      25.92     15  15       29.54     33  30      23.54     10  10        23.40     63  54
78    15.11      32.48  910 815      27.47     15  14       30.71     33  29      25.97     10  10        24.61     63  51
79    17.07      31.99  912 784      27.07     15  13       29.47     33  29      27.07     10   9        22.81     63  47

RATIO 27 - - - EQUITY LEVEL AS % OF TOTAL CAPITALIZATION
73     9.58      34.82  907 869      21.97     15  14       29.02     33  31      21.97     10  10        28.00     63  59
74     9.69      34.45  907 869      21.65     15  14       27.36     33  30      20.51     10  10        25.89     63  59
75    10.62      34.58  908 861      23.14     15  14       32.45     33  30      21.03     10  10        24.40     63  60
76    11.82      34.90  909 851      25.88     15  14       32.27     33  31      21.38     10  10        25.33     63  54
77    14.37      34.94  909 834      29.65     15  15       31.05     33  30      24.36     10  10        24.37     63  54
78    16.51      34.81  910 811      29.74     15  14       34.30     33  30      27.07     10  10        26.21     63  51
79    18.68      34.00  912 780      28.19     15  13       31.30     33  29      28.10     10   9        24.57     63  47
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EEI'S DEF RATIO TREND ANALYSIS FOR FLORIDA

US TOTAL	STATE GROUPINGS	CONSUMER SIZE
[illegible]	[illegible]	[illegible]

CFC'S KEY RATIO TREND ANALYSIS FOR FLORIDA 033

[illegible]	US TOTAL MEDIAN	NBR RNK	STATE GROUPINGS MEDIAN	NBR	RNK	CONSUMER SIZE MEDIAN	NBR	RNK	MAJ CUR PWR SUPPLIER MEDIAN	NBR	RNK	[illegible]
[illegible] ANNUAL INVESTMENT IN PLANT AS % OF NET PLANT												
[illegible]	[illegible]	[illegible]	16.21	15	5	10.00	33	7	17.60	10	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	9.50	15	[illegible]	9.63	33	6	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	10.77	15	[illegible]	11.16	33	22	13.10	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	11.35	15	8	12.19	33	18	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	11.85	15	4	14.14	33	11	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	12.17	15	[illegible]	12.86	33	17	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] ANNUAL % GROWTH IN # OF CONSUMERS												
[illegible]	[illegible]	[illegible]	6.57	15	[illegible]	6.47	33	1	6.25	10	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	4.73	15	[illegible]	3.73	33	1	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	4.72	15	[illegible]	3.97	33	4	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	5.77	15	[illegible]	4.37	33	5	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	6.21	15	[illegible]	4.19	33	3	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	6.50	15	[illegible]	4.00	33	2	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] ANNUAL % GROWTH IN TOTAL UTILITY PLANT												
[illegible]	[illegible]	[illegible]	13.34	15	2	9.02	33	7	14.36	10	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	8.22	15	[illegible]	7.51	33	6	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	9.16	15	7	8.63	33	13	13.30	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	9.65	15	5	9.93	33	12	10.02	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	9.74	15	[illegible]	10.96	33	[illegible]	13.36	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	9.99	15	6	10.61	33	14	11.45	[illegible]	[illegible]	[illegible]
[illegible] ANNUAL % GROWTH IN KWH SOLD												
[illegible]	[illegible]	[illegible]	4.93	15	2	3.04	33	3	4.51	10	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	7.73	15	[illegible]	6.21	33	7	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	8.86	15	[illegible]	7.93	33	5	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	10.16	15	[illegible]	10.47	33	6	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	6.01	15	[illegible]	7.19	33	4	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	2.89	15	[illegible]	5.40	33	2	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] ANNUAL % GROWTH IN TOTAL CAPITALIZATION												
[illegible]	[illegible]	[illegible]	12.74	15	[illegible]	11.48	33	4	17.08	10	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	10.64	15	[illegible]	9.79	33	3	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	7.47	15	11	9.96	33	27	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	8.76	15	7	9.69	33	19	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	11.86	15	6	12.14	33	12	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	11.56	15	[illegible]	16.27	33	21	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] AVERAGE COMPOUND (%) GROWTH IN TOTAL CAPITALIZATION												
[illegible]	[illegible]	912 146	11.53	15	2	10.61	33	7	12.56	10	1	[illegible]

Attachment [illegible]
Page [illegible]

Attachment 1

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Line No.	Component	Customer-Related Residential Costs	Indicated Customer Charge
	RATE BASE:		
1.	Distribution Plant & Allocated General Plant	$25,328,207	
2.	Accumulated Depreciation Reserve	3,752,932	
3.	Net Plant	$21,575,275	
	Working Capital:		
4.	Materials & Supplies	430,363	
5.	Prepayments	84,968	
6.	Cash	249,952	
7.	Subtotal	765,273	
8.	Construction Work In Progress	1,111,030	
9.	Capital Term Certificates	636,077	
10.	Consumer Deposits	(1,174,436)	
		$22,913,219	
	EXPENSES:		
11.	O & M Including	$ 239,529	
12.	Sales	24,255	
13.	Customer Accounts	943,944	
14.	A & G	791,888	
15.	Depreciation (Excluding Gen. Plnt.)	669,137	
16.	Taxes-Dist. (Excludes General Plant)	217,093	
17.	Total Expenses	$ 2,885,846	
18.	RETURN @ [illegible] of Rate Base	[illegible]	
19.	TOTAL COST (17 + 18)	[illegible]	
20.	[illegible]		[illegible]
21.	[illegible]		[illegible]

[illegible] page